



COMMERCIAL AIR CONDITIONER

LCAC VRF Chiller



Subject to change without any prior notice

Walton Hi-Tech Industries PLC.

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waltonbd.com

waltonbd.com



Walton Hi-Tech Industries PLC.
(Pioneer of VRF Manufacturer in Bangladesh)

Contents

IFM series

Features

Control Technology

Indoor Unit Product Line Up

Indoor Unit Features

Outdoor Unit Product Line Up

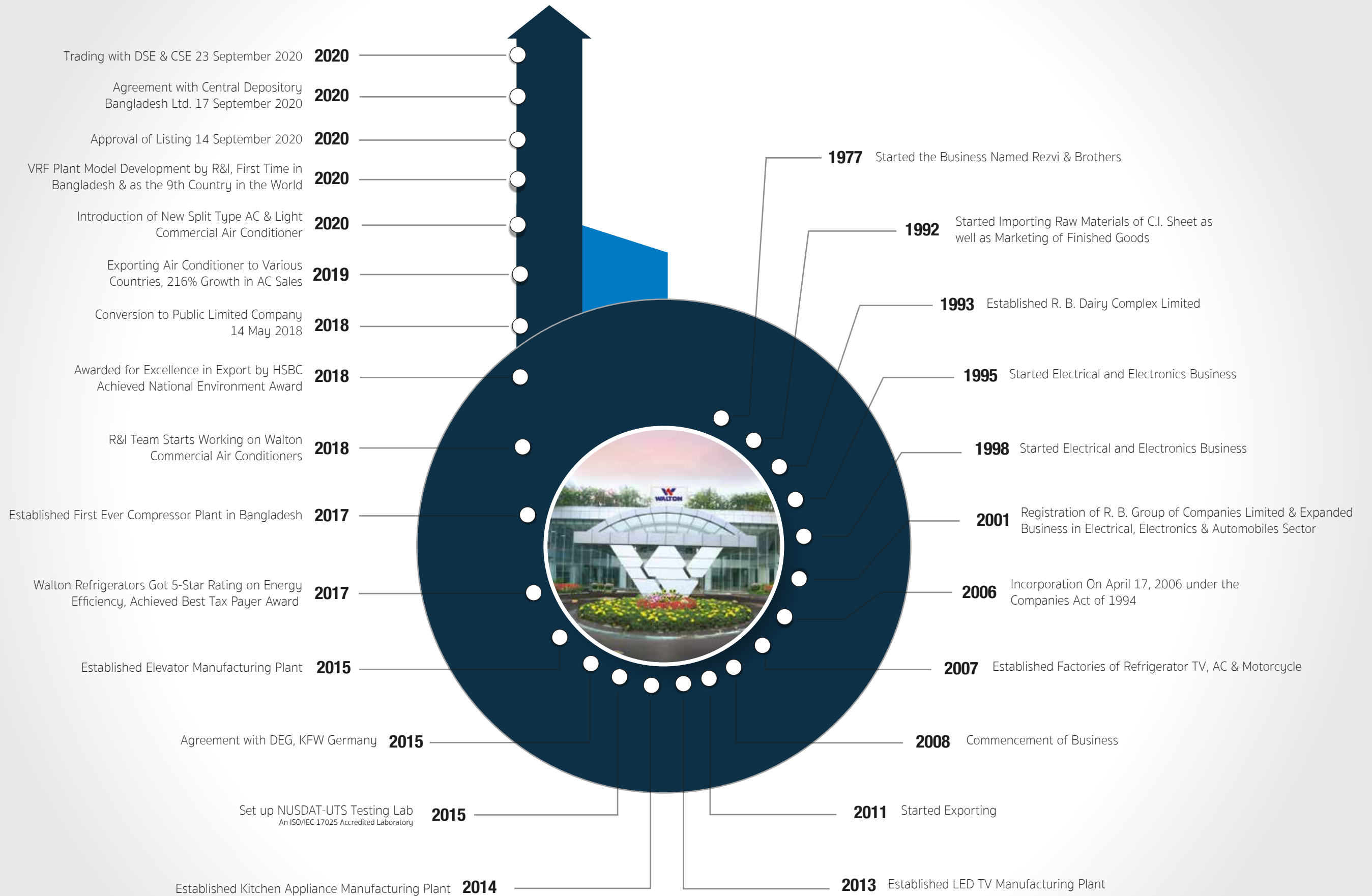
Outdoor Unit Features



Company Profile

Walton started its business in 1977 and in early 2008 Walton Hi-Tech Industries PLC. started manufacturing Refrigerator, Freezer and Air Conditioner. Now onward Walton is expanding its operation in Television, Home, Electrical & Kitchen Appliances. Walton has become the most trusted and prestigious brand in E&E industry of Bangladesh through its strong manufacturing base, quality products, competitive pricing, extensive market coverage and last but not the least, prompt after sales services. As a result, within a very short period of time, the brand has captured substantial market share and positioned itself as the most dominant performer in the E&E sector of Bangladesh. Product portfolio of WHIPLC. includes Refrigerator (Frost & Non-Frost), Freezer, Air Conditioner, Compressor, Television, Elevator, Home & Kitchen and Electrical Appliances.

Beyond Dream





COMMERCIAL AIR CONDITIONER

Ceiling Type AC

Walton started its business in 1977 and in early 2008 Walton Hi-Tech Industries PLC. started manufacturing Refrigerator, Freezer and Air Conditioner.

SURROUND COOLING

MULTI WAY AIR SWING



LED Display

Now onward Walton is expanding its operation in Television, Home, Electrical & Kitchen Appliances. Walton has become the most trusted and prestigious brand in E&E industry of Bangladesh through its strong manufacturing base, quality products, competitive pricing, extensive market coverage and last but not the least, prompt after sales services.



Golden Fin Condenser



Hydrophilic Golden Fin Evaporator



Wide Angle Air Flow



LED Display

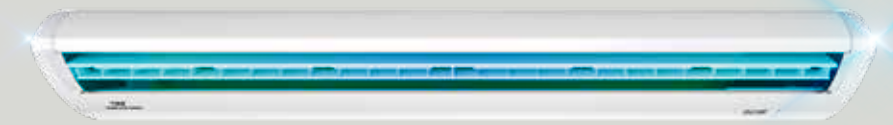


Variable Cooling



COMMERCIAL AIR CONDITIONER

Ceiling Type AC



Model : WFN-30K-RXXXG
 Function : Cooling
 Cooling Capacity : 8792W (30000 BTU/hr)
 Refrigerant Type : R-410a

Model : WFN-36K-RXXXG
 Function : Cooling
 Cooling Capacity : 10550W (36000 BTU/hr)
 Refrigerant Type : R-410a

Model : WFN-48K-RXXXD
 Function : Cooling
 Cooling Capacity : 14068W (48000 BTU/hr)
 Refrigerant Type : R-410a

Model : WFN-60K-RXXXE
 Function : Cooling
 Cooling Capacity : 17584W (60000 BTU/hr)
 Refrigerant Type : R-410a

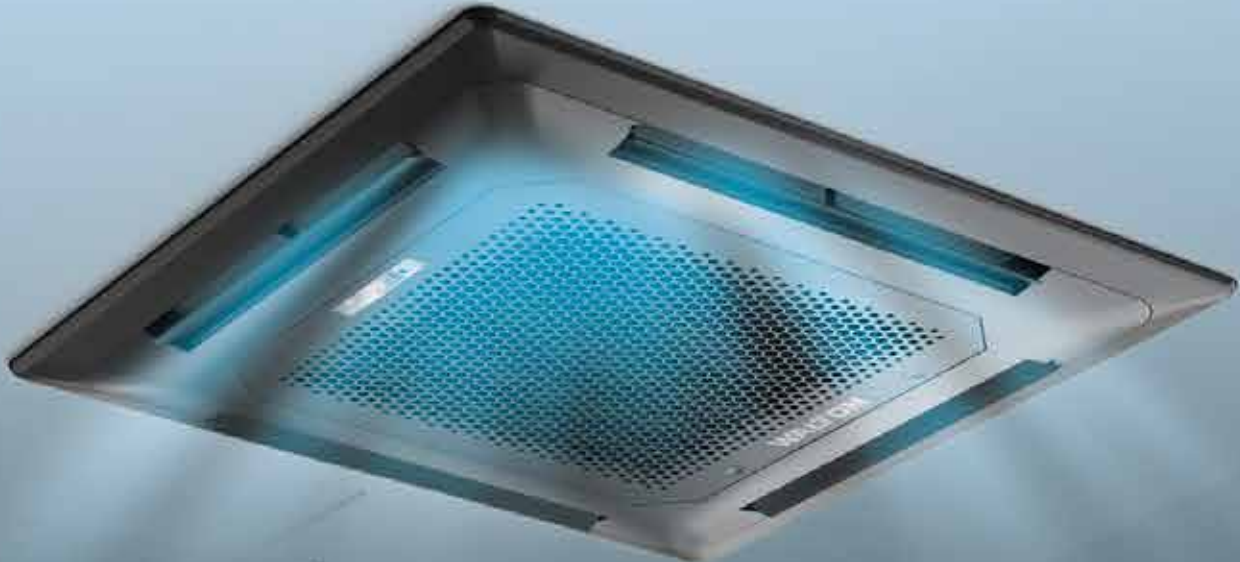
Technical Specification of Air Cooled Modular Scroll Chiller

Model		WACTSR035HB-HC	WACTSR065HA-HC	WACTSR130CA-HC
Cooling capacity	kW	35	65	130
	TR	10	18.5	37
Heating capacity	kW	37	70	--
	TR	10.5	20	--
Power supply		V-Ph-Hz		
Power input	Cooling	kw	11.5	19.9
	Cooling rated current	amp	19.0	38.2
	Heating	kw	11.7	20.0
	Heating rated current	amp	20.0	38.5
Maximum input power		kw	14.0	30.2
Maximum input current		amp	27	50
Cooling EER		kw/kw	3.0	3.2
Heating COP		kw/kw	3.2	3.5
Refrigerant	Type	R-410a		
	Charge amount	kg	6	11.5
Compressor	Type	Hermetic Scroll		
	Quantity	--	1	2
Evaporator (water side heat exchanger)	Type	High efficiency DX type shell & tube		
	Water flow rate	m³/h	5.7	11.4
	Water pressure drop	kPa	30	30
	Connection water pipe size	mm	DN40	DN50
Condenser (air side heat exchanger)	Type	V-shape fin & tube		
	Fan quantity	--	1	2
	Total airflow	m³/h	13000	26000
	Current	amp	2.2 x 1	2.2 x 2
Power		kw	0.75 x 1	0.75 x 2
Unit dimension (L x D x H)		mm	1400 x 1000 x 1700	2060 x 1000 x 2000
Packing dimension (L x D x H)			1410 x 1005 x 1810	2070 x 1005 x 2155
Net weight		Kg	350	650
Operating weight		Kg	400	700

Notes

- The above specifications are based on below rated condition: Cooling mode: Ambient dry/wet bulb temperature 350C/240C, water inlet/outlet temperature 120C/70C Heating mode: Ambient dry/wet bulb temperature 70C/60C, water inlet/outlet temperature 400C/450C.
- Min./Max operating ambient temperature range for cooling 50C/430C, for heating -100C/210C.
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SUPREME AIR STREAM



COMMERCIAL AIR CONDITIONER

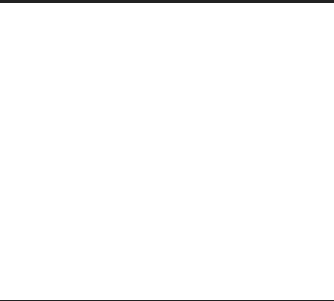
Cassette Type AC

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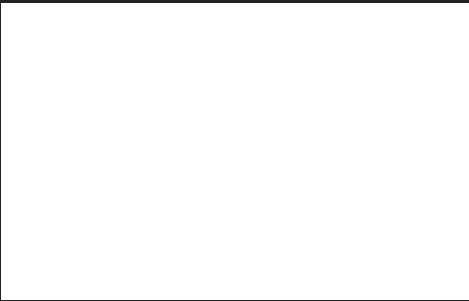


LED Display

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Golden Fin Condenser



Hydrophilic Golden Fin Evaporator



High Air Flow (Big Blower)



4 Way Air Out with Auto Swing



Easy Cleaning System



Energy Efficient

4 Way Cassette Type AC



The seven bladed giant blower of 476 mm diameter is designed to provide you air flow of more than 1800 cubic meter per hour.

COMMERCIAL AIR CONDITIONER

Cassette Type AC

Model : WCN-18K-RXXXF



Function : Cooling
Cooling Capacity : 5275W
BTU/hr : 18000 BTU/hr
Refrigerant Type : R-410a

Model : WCN-18K-RXXXF



Model : WCN-24K-RXXXB
Function : Cooling
Cooling Capacity : 7034W
BTU/hr : 24000 BTU/hr
Refrigerant Type : R-410a

Model : WCN-18K-RXXXF



Model : WCN-Hexacomb-30G
Function : Cooling
Cooling Capacity : 8792W
BTU/hr : 30000 BTU/hr
Refrigerant Type : R-410a

Model : WCN-HEXACOMB-36G



Cooling Capacity : 10550W
BTU/hr : 36000 BTU/hr
Refrigerant Type : R-410a

Model : WCN-HEXACOMB-42D



Cooling Capacity : 12309W
BTU/hr : 42000 BTU/hr
Refrigerant Type : R-410a

Model : WCN-HEXACOMB-48D



Cooling Capacity : 14068W
BTU/hr : 48000 BTU/hr
Refrigerant Type : R-410a

Model : WCI-HEXACOMB-48Z



Function : Cooling
Cooling Capacity : 14068W
BTU/hr : 48000 BTU/hr
Refrigerant Type : R-410a

Model : WCN-60K-RXXXE



Function : Cooling
Cooling Capacity : 17584W
BTU/hr : 60000 BTU/hr
Refrigerant Type : R-410a



High Air Flow (Big Blower)



Variable Cooling Capacity



4 Way Air Out with Auto Swing



Easy Cleaning System



Golden Fin Evaporator



Energy Efficient

COMMERCIAL AIR CONDITIONER

Cassette Type AC

Technical Specification of Air Cooled Modular Scroll Chiller

Technical Specification	WCN-18K-RXXXF	WCN-24K-RXXXB	WCN-Hexacomb-30G	WCN-HEXACOMB-36G
Basic Features	1.5 Ton Cassette	2.0 Ton Cassette	2.5 Ton Cassette	3 Ton Cassette
Function:	Cooling	Cooling	Cooling	Cooling
BTU/hr:	18000	24000	30000	36000
Cooling Capacity (watts):	5275	7034	8792	10550
COP:	2.78	2.91	2.67	3
Rated Input Power (Watts):	1900	2410	3290	3500
Rated Current (A):	9.1	11.3	5.75	7.4
Power Supply (phase/voltage (V) /frequency (Hz) /current (A)):	Single/220-240/50/9.1	Single/220-240/50/11.3	Three/380-420/50/5.75	Three/380-420/50/7.4
Air Circulation (m³/h)				
Cooling Features	1000	1100	1350	1700
Compressor Type:	Rotary (Fixed Speed)	Rotary (Fixed Speed)	Rotary (Fixed Speed)	Rotary (Fixed Speed)
Refrigerant Type:	R-410a	R-410a	R-410a	R-410a
Refrigerant Amount (kg):	1.12	1.48	1.75	2
Outdoor Operating Range (outdoor temperature):	18°C-43°C	20°C-43°C	18°C-43°C	18°C-43°C
Condenser Type:	Copper Tube Condenser	Copper Tube Condenser	Copper Tube Condenser	Copper Tube Condenser
Indoor Fin Type:	Louvered Fin	Louvered Fin	Louvered Fin	Louvered Fin
Outdoor Fin Type	Slit Fin	Slit Fin	Slit Fin	Slit Fin
Maximum Pipe Length:	30m	30m	30m	30m
Operations				
Turbo Mode (Faster Cooling)	N/A	N/A	N/A	N/A
Turbo Mode (Maximum Cooling)	N/A	N/A	N/A	N/A
Eco Mode	N/A	N/A	N/A	N/A
Auto Operation	Yes	Yes	Yes	Yes
Dry Mode	Yes	Yes	Yes	Yes
Fan Mode	Yes	Yes	Yes	Yes
Speed Setting	Yes (Auto, High, Medium, Low)	Yes (Auto, High, Medium, Low)	Yes (Auto, High, Medium, Low)	Yes (Auto, High, Medium, Low)
Auto Restart	Yes	Yes	Yes	Yes
Comfort Cooling	Yes	Yes	Yes	Yes
Timer	Yes	Yes	Yes	Yes
Sleep	Yes	Yes	Yes	Yes
Air Deflection				
Auto UP-Down Swing:	Yes	Yes	Yes	Yes
Auto Left-Right Swing	N/A	N/A	N/A	N/A
Remote Control				
Display Type:	LED	LED	LED	LED
Display Back Light:	N/A	N/A	N/A	N/A
Operation/Control:	Via IR (Infrared Ray)	Via IR (Infrared Ray)	Via IR (Infrared Ray)	Via IR (Infrared Ray)
Child Lock	N/A	N/A	N/A	Yes
Temperature Unit Change:	Yes (16°C To 31°C)	Yes (16°C To 31°C)	Yes (16°C To 31°C)	Yes (16°C To 31°C)
Unit Dimensions				
Indoor (mm) [LXWXH]:	840 x 835 x 240	840 x 835 x 240	860 x 860 x 245	840 x 840 x 310
Outdoor (mm) [LXWXH]:	844 x 310 x 546	865 x 370 x 687	917 x 330 x 840	917 x 330 x 840
Packing Dimensions				
Indoor (mm) [LXWXH]:	890 x 870 x 280	890 x 870 x 280	915 x 915 x 290	890 x 890 x 345
Outdoor (mm) [LXWXH]:	900 x 372 x 610	935 x 435 x 750	1030 x 400 x 1000	1030 x 400 x 1000
Indoor Weights				
Net Weight (Indoor) (Kg):	28 ± 1	28 ± 1	28.5 ± 1	35 ± 1
Gross Weight (Indoor) (Kg):	34 ± 1	34 ± 1	32.5 ± 1	40 ± 1
Outdoor Weights				
Net Weight (Outdoor) (Kg):	35 ± 1	46 ± 1	70.00 ± 1	70.00 ± 1
Gross Weight (Outdoor) (Kg):	39.50 ± 1	52 ± 1	80.00 ± 1	80.00 ± 1
Indoor Front Panel				
Net Weight (Indoor Front Panel) (Kg)	5.5 ± 0.25	5.5 ± 0.25	6.00 ± 0.25	5.3 ± 0.25
Gross Weight (Outdoor Front Panel) (Kg)	7.4 ± 0.25	7.4 ± 0.25	8.00 ± 0.25	9.11 ± 0.25
Front panel				
Front panel Unit Dimension (mm) [LXWXH]:	950 X 950 X 45	950 X 950 X 45	955 x 955 x 50	950 X 950 X 45

Notes

- The above specifications are based on below rated condition: Cooling mode: Ambient dry/wet bulb temperature 350C/240C, water inlet/outlet temperature 120C/70C Heating mode: Ambient dry/wet bulb temperature 70C/60C, water inlet/outlet temperature 400C/450C
- Min./Max operating ambient temperature range for cooling 50C/430C, for heating -100C/210C.
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COMMERCIAL AIR CONDITIONER

Cassette Type AC

Technical Specification of Air Cooled Modular Scroll Chiller

Technical Specification	WCN-HEXACOMB-42D	WCN-HEXACOMB-48D	WCN-60K-RXXXE	WCI-HEXACOMB-48Z
Basic Features	3.5 Ton Cassette	4 Ton Cassette	5 Ton Cassette	4 Ton Cassette Inverter
Function:	Cooling	Cooling	Cooling	Cooling
BTU/hr:	42000	48000	60000	48000
Cooling Capacity (watts):	12309	14068	17584	14068
COP:	2.8	2.79	3.22	3.16
Rated Input Power (Watts):	4400	5036	5450	4450
Rated Current (A):	8.5	9.74	9.66	20
Power Supply (phase/voltage (V) /frequency (Hz) /current (A)):	Three/ 380-420/ 50/ 8.50	Three/380-420/50/9.74	Three/ 380-420/ 50/ 9.66	Single/230/50/20
Air Circulation (m³/h)	2000	2000	2100	1900
Cooling Features				
Compressor Type:	Scroll (Fixed Speed)	Scroll (Fixed Speed)	Scroll (Fixed Speed)	Scroll (Fixed Speed)
Refrigerant Type:	R-410a	R-410a	R-410a	R-410a
Refrigerant Amount (kg):	2.18	2.18	2.18	2.18
Outdoor Operating Range (outdoor temperature):	18°C-43°C	18°C-43°C	18°C-43°C	18°C-43°C
Condenser Type:	Copper Tube Condenser	Copper Tube Condenser	Copper Tube Condenser	Copper Tube Condenser
Indoor Fin Type:	Louvered Fin	Louvered Fin	Louvered Fin	Louvered Fin
Outdoor Fin Type	Slit Fin	Slit Fin	Slit Fin	Slit Fin
Maximum Pipe Length:	30m	30m	30m	30m
Operations				
Turbo Mode (Faster Cooling)	N/A	N/A	N/A	Yes
Turbo Mode (Maximum Cooling)	N/A	N/A	N/A	N/A
Eco Mode	N/A	N/A	N/A	Yes
Auto Operation	Yes	Yes	Yes	Yes
Dry Mode	Yes	Yes	Yes	Yes
Fan Mode	Yes	Yes	Yes	Yes
Speed Setting	Yes (Auto, High, Medium, Low)	Yes (Auto, High, Medium, Low)	Yes (Auto, High, Medium, Low)	Yes (Auto, High, Medium, Low)
Auto Restart	Yes	Yes	Yes	Yes
Comfort Cooling	Yes	Yes	Yes	Yes
Timer	Yes	Yes	Yes	Yes
Sleep	Yes	Yes	Yes	Yes
Air Deflection				
Auto UP-Down Swing:	Yes	Yes	Yes	Yes
Auto Left-Right Swing	N/A	N/A	N/A	N/A
Remote Control				
Display Type:	LED	LED	LCD	LCD
Display Back Light:	N/A	N/A	Yes	N/A
Operation/Control:	Via IR (Infrared Ray)	Via IR (Infrared Ray)	Via IR (Infrared Ray)	Via IR (Infrared Ray)
Child Lock	N/A	N/A	N/A	Yes
Temperature Unit Change:	Yes (16°C To 31°C)	Yes (16°C To 31°C)	Yes (16°C To 31°C)	Yes (16°C To 31°C)
Unit Dimensions				
Indoor (mm) [LXWXH]:	840 x 840 x 310	840 x 840 x 310	975 x 975 x 305	840 x 840 x 310
Outdoor (mm) [LXWXH]:	917 x 330 x 980	917 x 330 x 980	917 x 330 x 1260	917 x 330 x 1260
Packing Dimensions				
Indoor (mm) [LXWXH]:	890 x 890 x 345	890 x 890 x 345	1040 x 1040 x 315	890 x 890 x 345
Outdoor (mm) [LXWXH]:	1030 x 400 x 1000	1030 x 400 x 1000	1030 x 400 x 1290	1030 x 400 x 1290
Indoor Weights				
Net Weight (Indoor) (Kg):	35 ± 1	35 ± 1	42 ± 1	35 ± 1
Gross Weight (Indoor) (Kg):	40 ± 1	40 ± 1	49 ± 1	40 ± 1
Outdoor Weights				
Net Weight (Outdoor) (Kg):	90.7 ± 1	90.7 ± 1	106.7 ± 1	105 ± 1
Gross Weight (Outdoor) (Kg):	100.28 ± 1	100.28 ± 1	118.28 ± 1	111 ± 1
Indoor Front Panel				
Net Weight (Indoor Front Panel) (Kg)	5.3 ± 0.25	5.3 ± 0.25	6.00 ± 0.25	5.3 ± 0.25
Gross Weight (Outdoor Front Panel) (Kg)	9.11 ± 0.25	9.11 ± 0.25	8.00 ± 0.25	9.11 ± 0.25
Front panel				
Front panel Unit Dimension (mm) [LXWXH]:	950 X 950 X 45	950 X 950 X 45	1140 x 1140 x 75	950 X 950 X 45

Notes

- The above specifications are based on below rated condition: Cooling mode: Ambient dry/wet bulb temperature 350C/240C, water inlet/outlet temperature 120C/70C Heating mode: Ambient dry/wet bulb temperature 70C/60C, water inlet/outlet temperature 400C/450C
- Min./Max operating ambient temperature range for cooling 50C/430C, for heating -100C/210C.
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Air Conditioning **CONDENSER**

Walton IFM series VRF Air Conditioning System



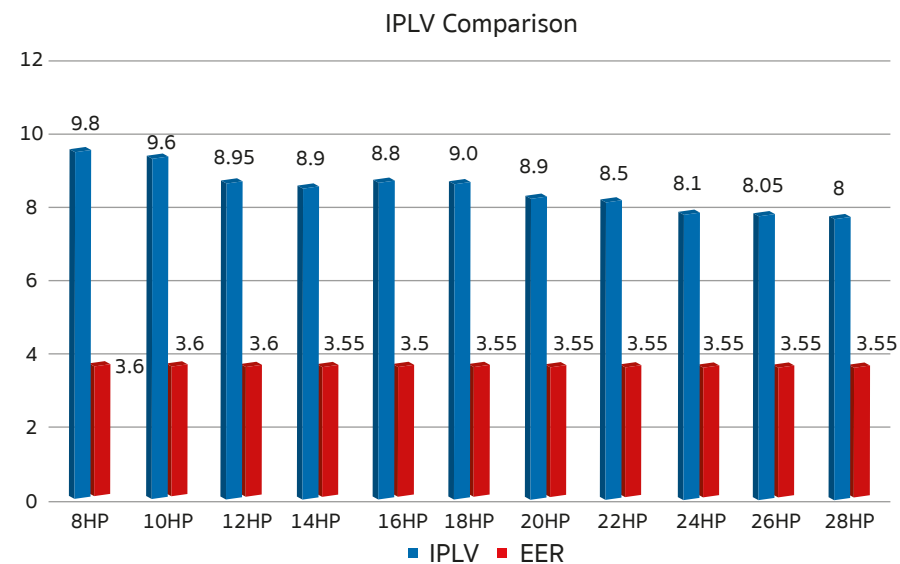
IFM series always meets the customers' expectation, is committed to technological innovation, focuses on acquisition of users with quality.

Walton proudly introduces its IFM series VRF. IFM series comes with full DC frequency conversion control technology and multi connection with the purpose of energy saving demand of commercial customers. It is considered as the next generation modular system in the world of high efficiency air conditioning system. The new aesthetic design with C-type integrated four sided heat exchanger has undoubtedly changed the face of cooling associated with high storied buildings. With its easy installation and simple controlling system the IFM is designed to meet the demands of the air conditioning industry with its ultra-quiet and purification technology.

High Efficiency

9.8 Comprehensive Efficiency (IPLV)

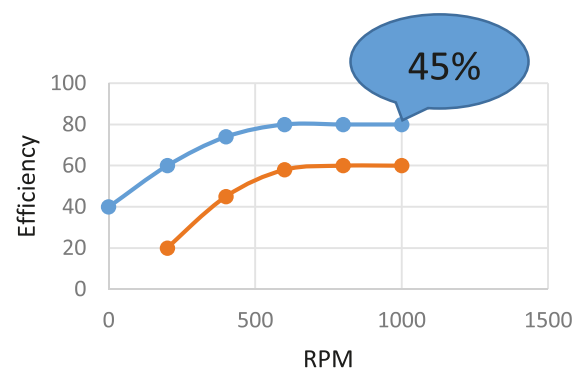
40% ~ 75% Operating Efficiency



IFM series achieves the industry's top-class energy efficiency in cooling & heating by utilizing DC inverter compressors and Enhanced Vapor Injection (EVI) technology. The Integrated Part Load Value (IPLV) is a performance characteristic developed by the Air-Conditioning, Heating & Refrigeration Institute (AHRI). It is most commonly used to describe the performance of an AC system capable of capacity modulation. Unlike an EER (Energy Efficiency Ratio) or COP (Co-efficient of Performance), which describes the efficiency at full load conditions, the IPLV is derived from the equipment efficiency while operating at various capacities. So, IPLV is a very important value to consider since it can effect energy uses and operating costs throughout the lifetime of the equipment.

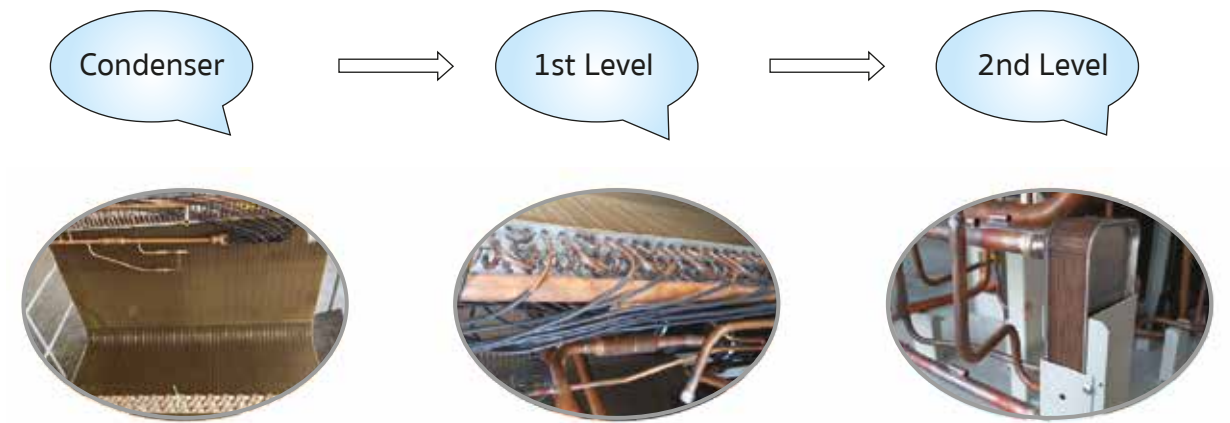
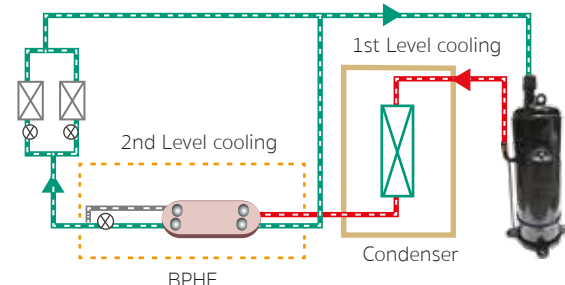
DC Inverter Fan Motor, More Stable & Energy Saving Operation

- DC Brushless motor adjusts the fan speed according to the system pressure and running load to enhance the efficiency by 45%.
- Super aero fan provides higher static pressure with larger air volume.
- High density winding wire.
- Stepless control and lower noise.



Two Level Depth Subcooling Technology

IFM series adopts the optimized external heat exchanger to realize the first level Sub-cooling and the efficient Braze Plate Heat Exchanger (BPHE) with super cooling design can reach up to refrigerant temperature 28°C which greatly improves the cycle efficiency.



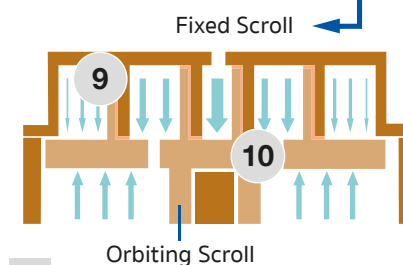
DC Drive Inverter Scroll Compressor with EVI Technology

1. Direct Suction
Reduces superheat & improves volumetric efficiency.

2. Improved Asymmetric Wrap
Additional displacement and superheat reduction for greater compressor efficiency.

3. High Efficiency Motor
Maintains high efficiency levels across with wide range of 10-140 rps.

4. Internal Oil Circulation Structure
Low oil circulation rates (<2%) keep oil in the compressor for superior reliability.



9. Non-contact Oil Membrane
Oil film seals involute section of scroll set, reduces compression leakage for improved performance and lower sound.

5. Gas Injection Technology
Lowers discharge temperature, increasing capacity & expanded operating envelop for enhanced performance.

6. Bypass Valves
Improved partial load efficiency with self-adapting pressure ratios for upgraded performance of low ambient heating and high ambient cooling.

7. High-Side Pressure Design
Higher volumetric efficiency and improved oil management.

8. Dynamic Oil Balance Structure
Patented technology for unsurpassed oil balance in parallel piped system operation.

10. Intermediate Gas Pressure
Axial force is continually adapting, blending discharge pressure and compressed suction pressure for optimized performance throughout the operating envelop.

Smart Oil Management Technology

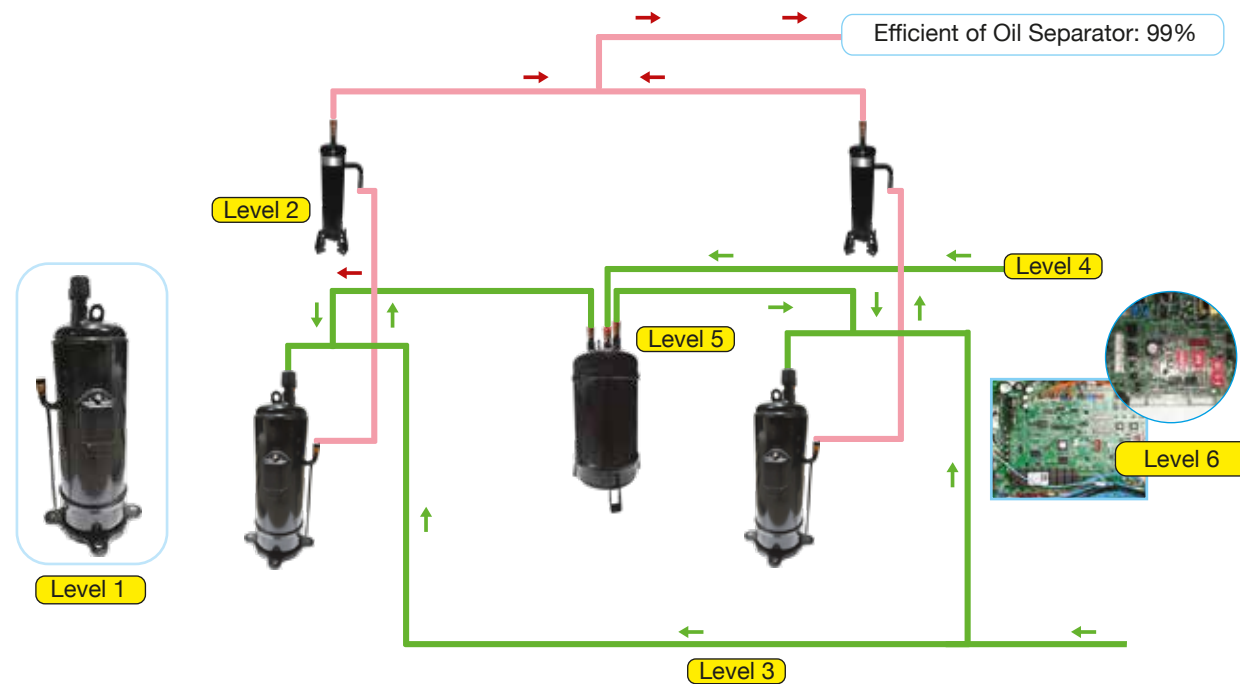
Six Level Oil Control

- Ensure each outdoor unit & compressor is always in the safe oil level to fundamentally solve the safety problem of oil shortage.

Level 1 : Oil/Mist separation	Level 2 : Efficient oil separator
Level 3 : Balancing oil technology among compressors	Level 4 : Balancing oil technology among outdoors
Level 5 : Gas liquid separator oil return	Level 6 : Automatic oil return of the system

Balancing Oil Control Technology

A balancing oil pipe is set up in the compressor. If oil in the compressor is excessive, the balancing oil & exhaust pipe will work together to send oil to the system which will balance & distribute the oil to the compressor.



Oil Return Control Technology

Oil return in oil separator

The distinctive structure design – centrifugal oil separator can rapidly separate the oil exhausted from the compressor with oil separation efficiency up to 99% and effectively transmit the oil to various compressors to ensure the oil demand of compressors.

Oil return of Gas/Liquid

Unique oil return hole design can ensure the stable & effective oil return of the compressor. Ultra large capacity design can store more refrigerant for the large systems and avoid the liquid strike better.

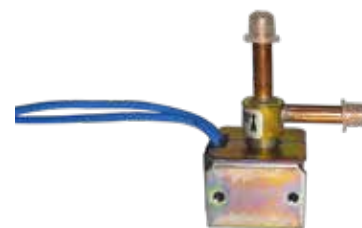
Automatic Oil Return of the System

The system will automatically return the oil through the instructions issued by the main chip according to the running time & status.

High-Quality Parts & Components :

System operates more efficiently

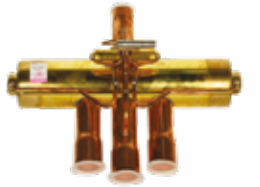
- EEV receives PID control signal to adjust refrigerant volume.
- Continual management of flow rate controls super heat and coil capacity for optimum performance and energy efficiency.
- High precision EEV refrigerant control is more accurate and air conditioning is more stable and comfortable.



Large Capacity Four-Way

Reversing Valve

- Optimal design for four way reversing valve adopts low pressure loss by ensuring the compressor suction volume along with improved to the completeness.



A Variety of Sensing Devices

The fast & accurate detection are the guarantees for the stable and efficient operation of the system. IFM series multi-machine not only detects the unit through temperature sensing but also shows running status through the high pressure & low pressure sensor by accurately detecting the refrigerant condition of the system. As a result, the unit is more stable and runs efficiently.

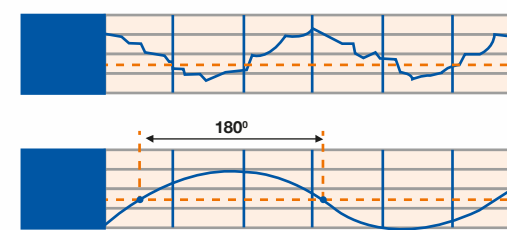


Sensitive Temperature Device

Sensitive temperature sensing device can sense $\pm 0.5^{\circ}\text{C}$. The temperature fluctuates fully to meet the human body's temperature.

SMT

Surface Mounted Technology (SMT) has a low defect rate of solder joints and good reliability. It offers significant advantages during PCB manufacture and in the matter of the size with the use of SMT components enable far more electronics to be packed into a much smaller space. In addition to the size, Surface Mounted Technology allows automated PCB assembly and soldering to be used and this brings significant improvements in reliability as well as enormous savings in cost.



Advanced 180° Vector

Frequency Conversion Technology

In the DC frequency conversion controller's output is smooth 180-degree positive sign pool shape. The stator coil of the compressor always forms a stable travelling magnetic field from low speed to high speed, effectively reduces the copper pressing along with sound.

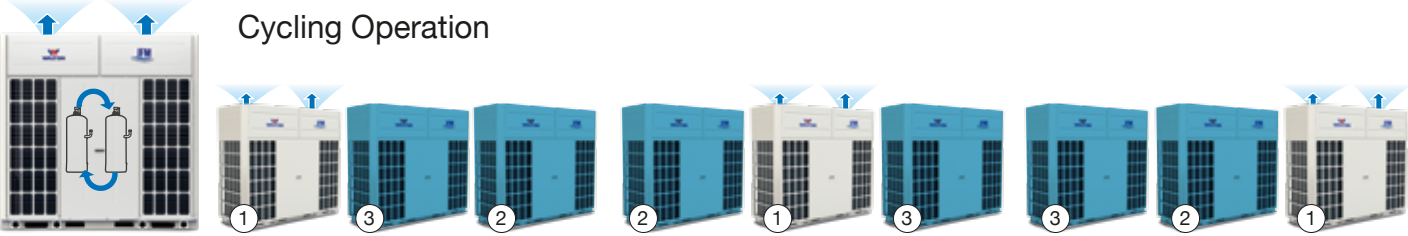
Stepless Frequency Conversion Technology

The unit can be adjusted from (10~100)% stepless capacity with continuous speed of the running compressor, free adjustment according to the changes of the system capacity, automatic capacity adjustment to meet the actual load.

Load Sharing Operation Ensuring Long-life and Reliability

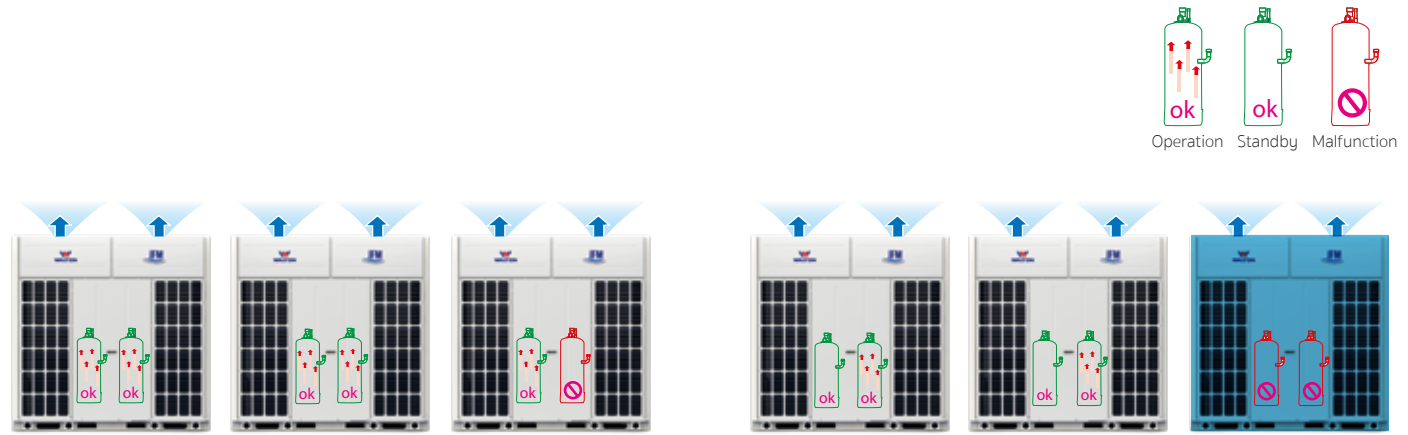
Rotation Technology

Through the rotation technology, the running time of each outdoor unit is shared to ensure longer service life and durability for each system.



Dual Backup Operation

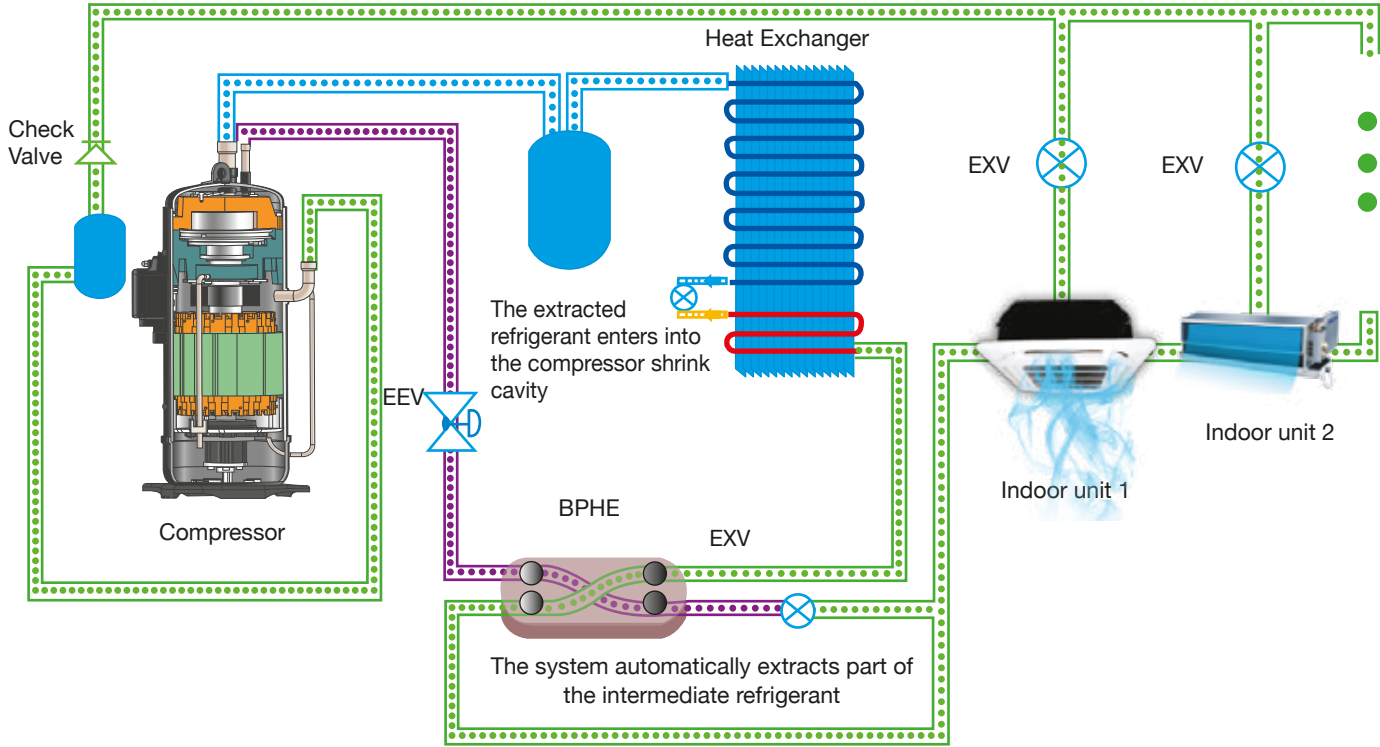
The outdoor unit has dual emergency functions. As for the first backup, if one of the two compressors in the outdoor unit fails (12HP or more), the other compressor can run in emergency. As for the second backup, if one outdoor unit in a system of more than 24HP fails then the alternative outdoor unit can operate in emergency mode.



Perfect Performance

Smart Defrosting Technology

When a building uses a VRF system during winter, frost accumulation on the outdoor unit can hinder performance. The unit's heating capacity is gradually reduced as ice builds up on the outdoor coils and excessive frosting can damage the system. To address this issue, manufacturers use a defrost cycle that reverses the heat pump's operation:



- Frost builds up on an heat exchanger in an outdoor unit if outdoor temperature is low & humidity is high .
- Frost can decrease heating performance. Automatic defrosting will start to remove frost. Heating will pause for 5-7 minutes.
- Vapor can be generated from the outdoor unit during defrosting is a normal sign of throwing.
- A heat pump in defrost mode operates similar to an air conditioner, draws heat from indoor air and releases it outside.
- The released heat melts the accumulated ice on the outdoor coil.
- When the outdoor unit is defrosted, the heat pump returns to heating mode.

Water pulling under the outdoor unit as frost melts IFM series ensures water drainage properly.



High Efficiency Heat Exchange

The outdoor heat exchanger adopts the high efficiency internal grooved copper tube and new hydrophilic aluminum fin. Its integral molding technology guarantees the larger heat exchange area, improves the air flow distribution, reduces the air flow resistance, exchanges the heat more efficiently and reduces the impact of the frosting on the heating capacity of the system.



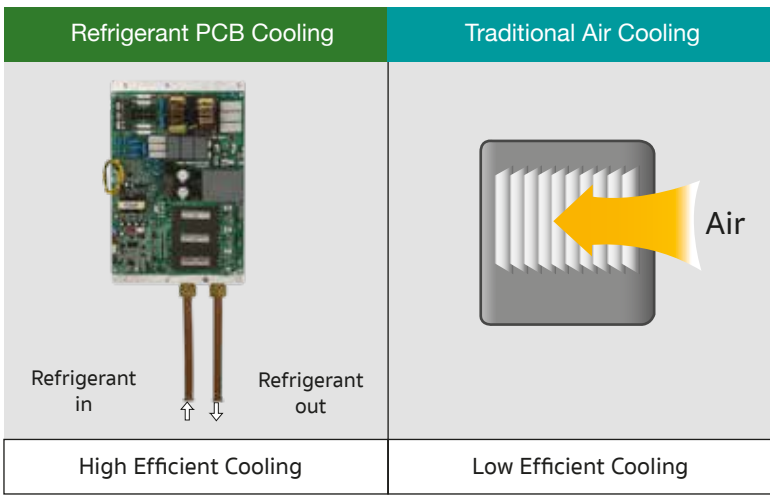
Blue Fin

Black Fin

Golden Fin

Refrigerant PCB Cooling Technology

During outdoor machine operation, the inverter produces a lot of heat. If the frequency of temperature is too high, it will lead the motherboard overheating which affects the system stability. New generation inverter cooling technology is using low temperature cold media cooling motherboard, air cooling to take away a lot of heat distributed by the motherboard is guaranteed to keep the system more stable.

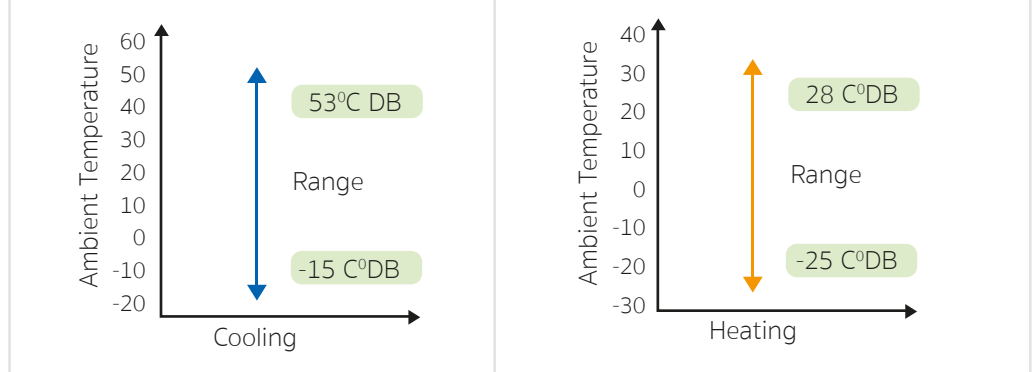


Refrigerant Control Technology

The structural integration of solenoid valve & capillary tube ensure a relatively uniform distribution of the refrigerant & reasonable and effective utilization of heat exchanger. The solenoid valve performs the ON/OFF actions to disconnect the refrigerant flow path so that it can effectively control the heat exchanging temperature of indoor unit.

Ultra Wide Range of Operation

New DC inverter scroll compressor is used & its heating operating temperature range is -25~28°C (Cooling -15~53°C).



Pressure Control Technology

The direct contact of pressure sensor & refrigerant in the pipeline can timely & accurately test the running high & low pressure of the system and quickly carry out the control & protection of the air conditioning system according to the system load & need. It tests the low/high pressure of the system and adjust the rotating speed of the external fan accurately and adjust the refrigerant in combination with the electronic expansion valve meanwhile control the output adjustment of the external capacity in variable capacity system to ensure the efficiency of the system which ensures the system more reliable.

Automatic Dust Removal Function

- Reverse running technology of DC fan automatically cleans the heat exchanger's inside equipment.
- After cleaning, it improves efficiency of the heat exchanger.
- Improves the cleanliness of the heat exchanger and extends the product life.



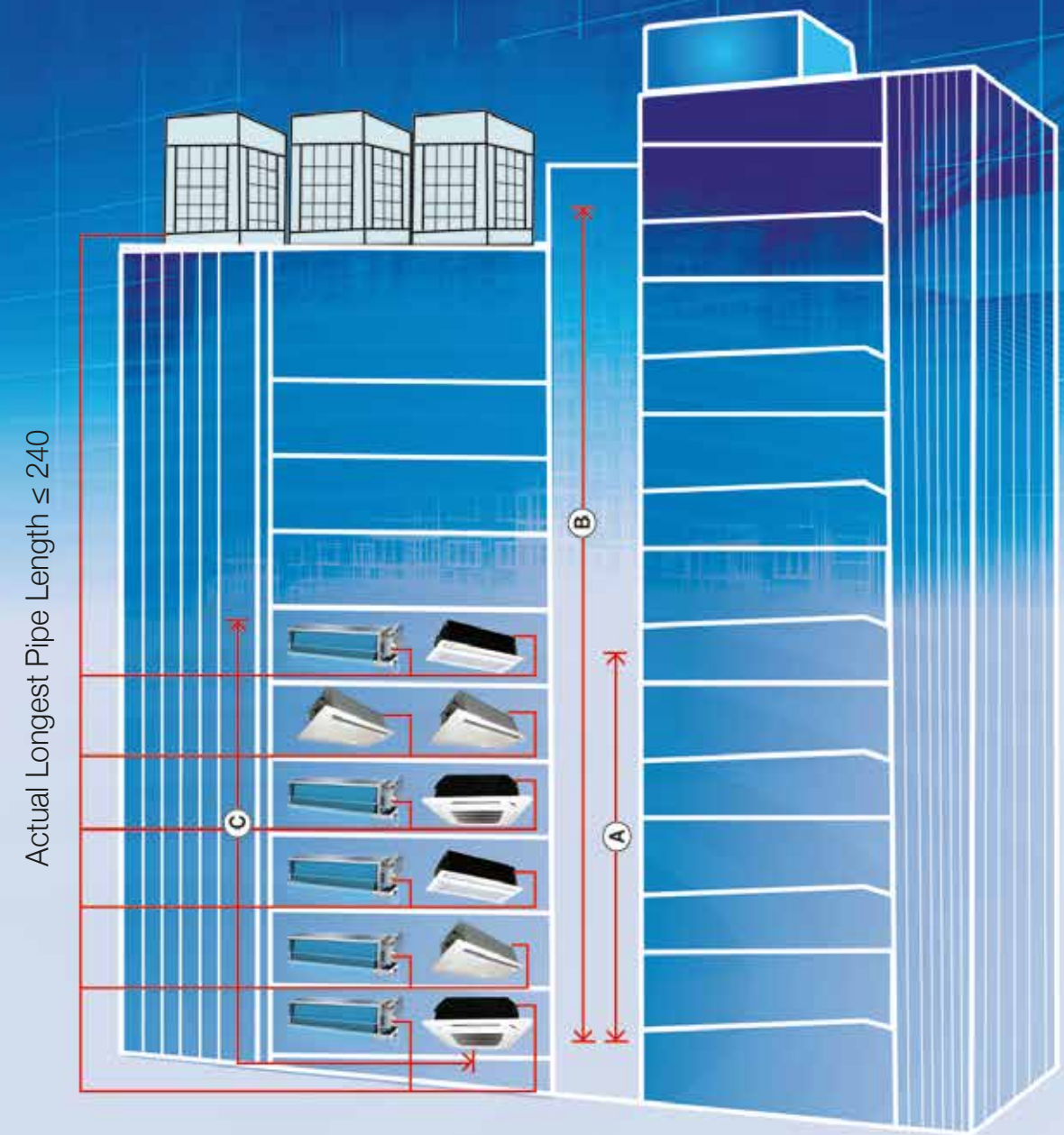
Normal Operation

Self Cleaning Operation



Super Long Connecting Pipe, Free and Flexible Design & Construction

Long Piping Length



Maximum Total Piping Length ≤ 1000 m

- A. Maximum height between IDU-IDU ≤ 30 m
- B. Maximum height between ODU-IDU ≤ 110 m
- C. Longest pipe length after first branch ≤ 90

Intelligent Control

A variety of controllers to meet individual needs

Standard Wired Controller

- Mode adjustment/fan speed/temperature/humidity adjustment
- Schedule management
- Fault display/filter cleaning reminder
- Built in wireless remote controller receiver
- Built in temperature sensor
- Physical button, enjoy the pleasure on fingertips

WRC100



WRC200



Wireless Remote Controller

- Mode adjustment/fan speed/temperature/humidity adjustment
- Schedule management
- Air deflector control
- One key mute
- One key energy saving

WRC300

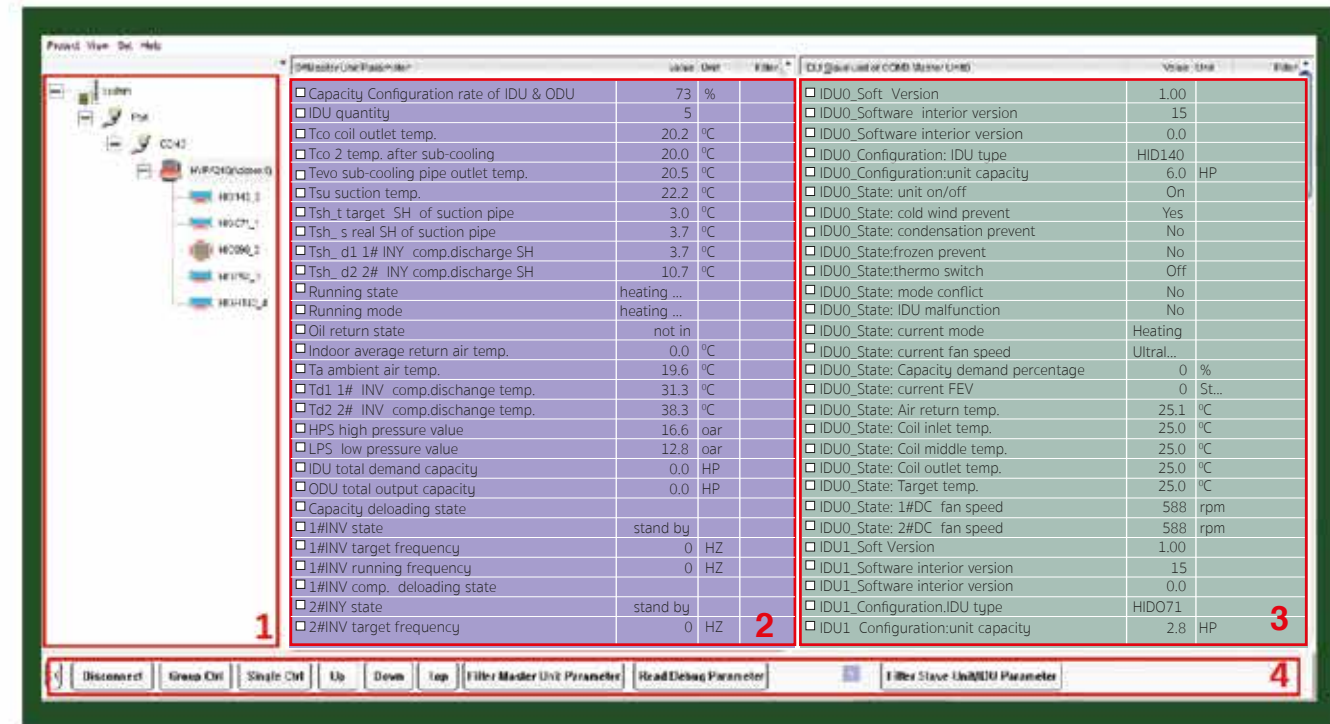


Wire Touch Screen Remote Controller

- Mode adjustment/fan speed/temperature/humidity adjustment
- Schedule management
- Fault display/filter cleaning reminder
- Built in wireless remote controller receiver
- Built in temperature sensor
- Smart human sensor for interactive wake up function
- One key group shutdown

Note: Remote control line controller.

Monitoring Software



1. Connected Unit	2. Master/Outdoor Unit Parameter
3. Slave/Indoor Units Parameter	4. Toolbar

Monitoring Software System Connection.

Main Components (Requirements & Function)



Connection with Outdoor Control PCB Communication Port



RS485 to USB Converter



Connect with PC



Indoor Group Control

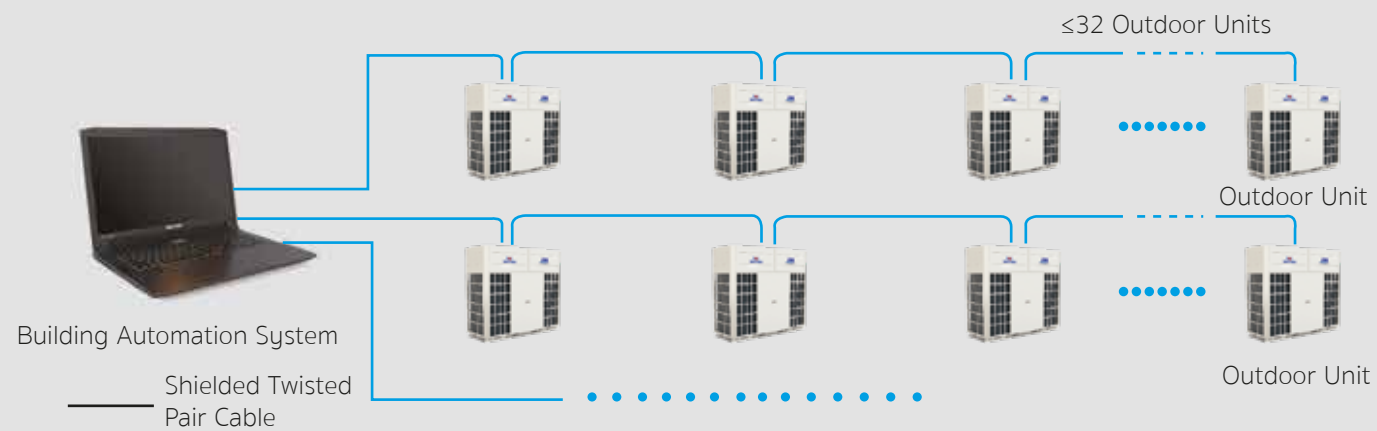


Indoor Individual Control

Intelligent Building Control System

Building Automation System

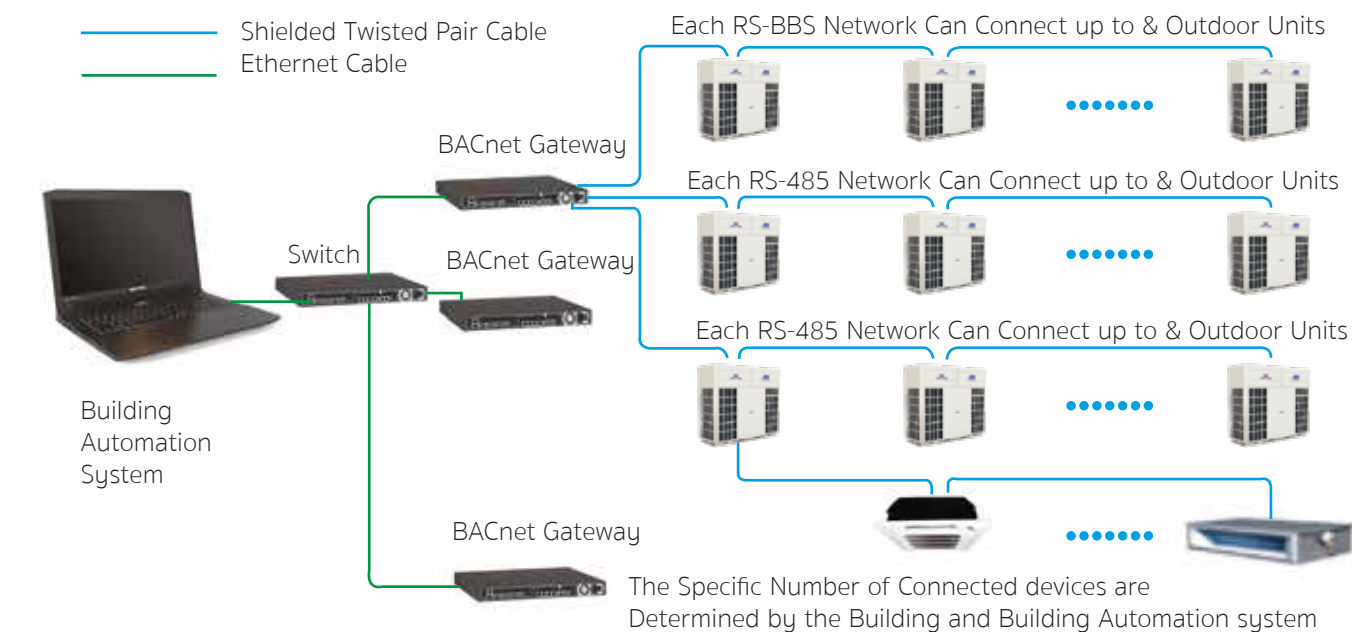
IFM series frequency conversion multilink can provide users a variety of building control system. Building automation system is based on ModBus communication protocol, controller can be directly connected through standard ModBus communication port, no frequency conversion is needed for the units. Controller can be connected with building automation system.



For building automation system based on BACnet, controller is connected through BACnet gateway protocol. In BACnet protocol, not more than 24 outdoor units can be connected, total number of machine does not exceed 1536.

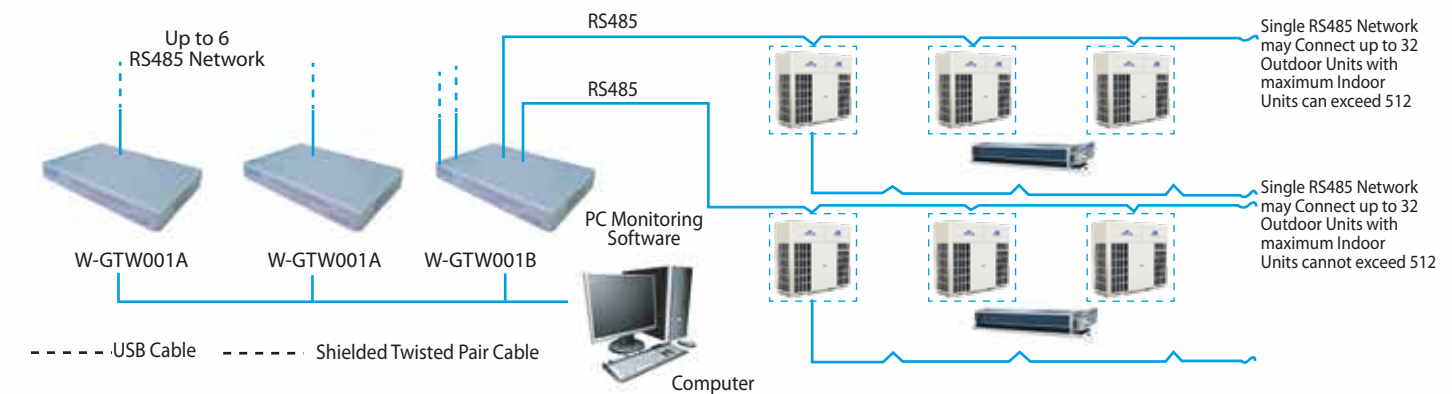
Main Features

- Air Conditioner switching and monitoring
- Lower controller permission settings
- Monitor and set fan operation
- Monitoring and switching operation modes
- Monitor and set indoor unit temperature



Intelligent Monitoring and Billing System

Intelligent Monitoring System W-CCS101A

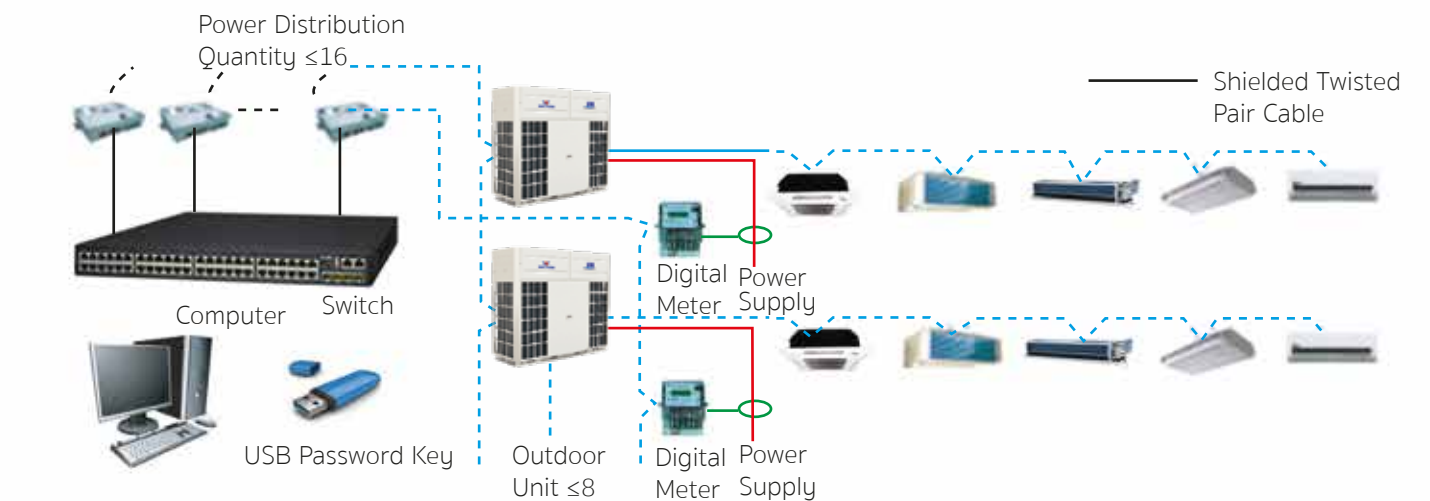


Main Features:

- Monitoring System: With device view and user monitoring, it is convenient for real-time monitoring of internal machines.
- Switching Machine & Mode Control: Mode, Fan Speed, Zone Temperature, Switch Machine can be performed on all units in the system and auxiliary functions for operating settings.
- Locking Function: The local thermostat can be locked.
- Group Management: Group settings can be customized to facilitate the management of different regions.
- Schedule Management: Timing commands, each indoor unit may start and stop regularly.
- System Management: Indoor unit operation meter, Indoor and Outdoor unit operation and fault records, output operation report.

Household Billing System W-CCS102A

Intelligent household billing software system is designed and developed for air condition system to manage individual unit which can be connected with up to 128 outdoor units. All the Indoor units are connected to it to carry out the system based billing, the power calculation is more reasonable and the management is easier.

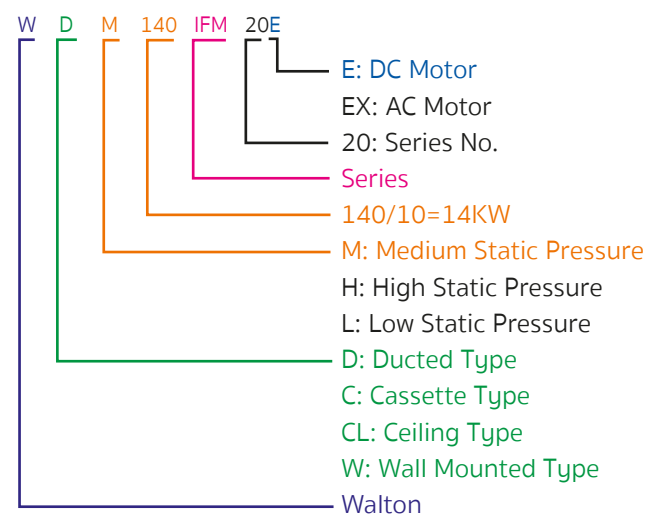


Indoor Unit Product Lineup

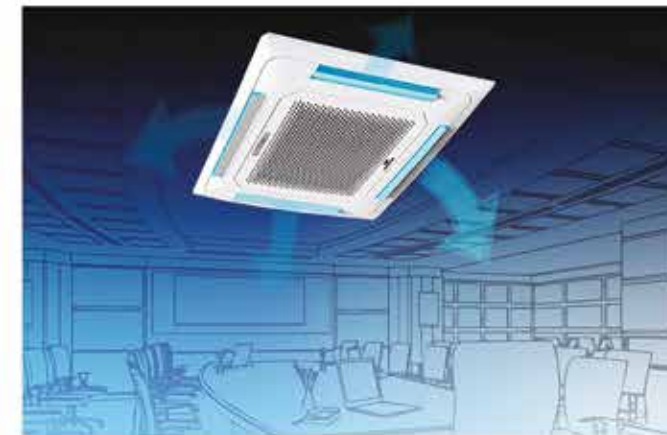
Indoor Unit Capacity Range

Indoor Type	Capacity Range (kW)	1.8	2.2	2.5	2.8	3.2	3.6	4.0	4.5	5.0	5.6	6.3	7.1	8.0	9.0	10.0	11.2	12.5	14.0	16.0	22.4	28.0	
Ducted (Low Static Pressure)			•	•	•	•	•	•	•	•	•	•	•										
Ducted (Medium Static Pressure)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Ducted (High Static Pressure)																•	•	•	•		•	•	
Two-way Cassette									•	•	•	•	•	•									
One-way Cassette							•			•	•	•	•										
Four-way Cassette					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			
Compact Four-way Cassette					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			
Outdoor Air Processor														•	•	•	•	•	•	•	•	•	
Wall Mounted		•		•	•	•	•	•	•	•	•	•	•										
Ceiling									•	•	•						•	•	•				

Indoor Units Nomenclature



Four Way Cassette



Inverter DC fan motor

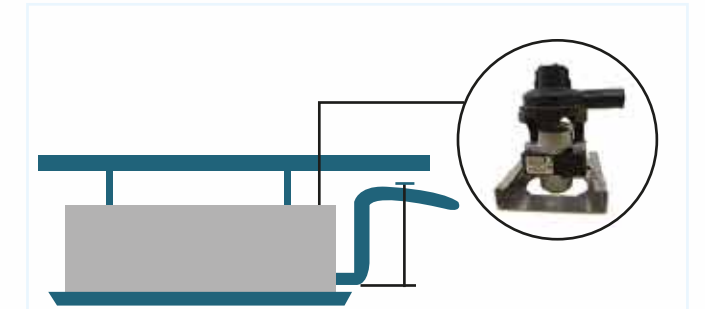
Power consumption is greatly reduced, especially when running at low speed, the operating efficiency is greatly improved.



Specifications

Model		WCM561FM20EX	WCM711FM20EX	WCM901FM20EX	WCM1401FM20EX
Nominal Cooling Capacity	W	5600	7100	9000	14000
Nominal Heating Capacity	W	6300	8000	10000	16000
Rated Input Power	W	75	99	180	200
Rated Input Current	A	0.33	0.43	0.83	0.9
Sound Pressure Level (High, Medium and Low)	db (A)	49/45/39	49/45/40	50/46/40	50/46/40
Air Volume (High, Medium and Low)	CMH	990/680/570	1000/830/690	1900/1700/1600	2000/1900/1800
Liquid Pipe Connection Size	mm (in)	Ø6.35 (1/4")	Ø9.52 (3/8")	Ø9.52 (3/8")	Ø9.52 (3/8")
Gas Pipe Connection Size	mm (in)	Ø12.7 (1/2")	Ø15.88 (5/8")	Ø15.88 (5/8")	Ø15.88 (5/8")
Condensate Water Pipe Size	mm	Ø20.5	Ø20.5	Ø20.5	Ø20.5
Unit Size (W x D x H)	mm	840 x 835 x 240	840 x 835 x 240	840 x 840 x 310	840 x 840 x 310
Unit Weight	kw	28	28	39	39
Power Supply		230V~/50Hz	230V~/50Hz	230V~/50Hz	230V~/50Hz

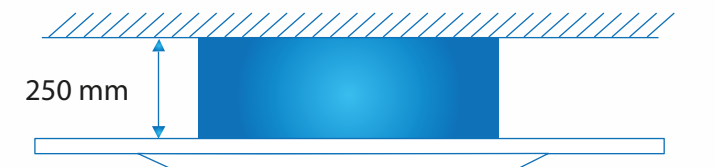
Built-in water drainage pump up to 1200 mm head



- Improve the ceiling space experience
- Controllable tube position to avoid beam interruption
- Risk-free of bubble forming
- Avoid the accumulation of condensate in the water tray that prevents to breed bacteria.

Ultra Slim Design

Only 250 mm height saves installation space.



Duct Series

<p>Low ESP Duct</p> 	
<p>MID ESP Duct</p> 	
<p>High ESP Duct</p> 	

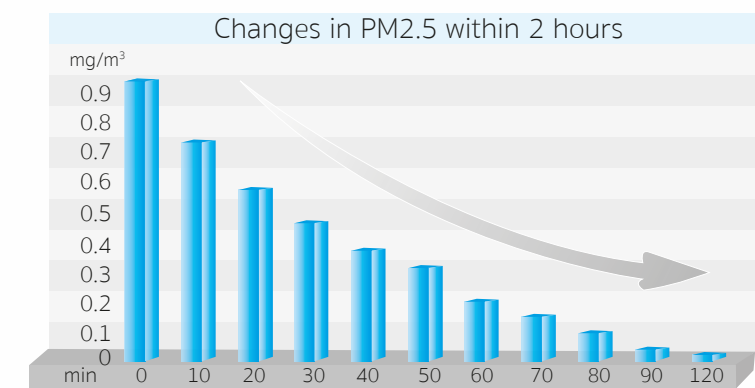
PM 2.5 Solution : Efficient Removal Module

With indoor engine optional PM 2.5 filtering, three nets and the highest removal rate of 99% are to achieve indoor air circulation with healthy indoor environment.



Better World For Future

Fine particulate matter (PM 2.5) is an air pollutant that is a concern for people's health when levels in air are high. PM2.5 are tiny particles in the air that reduce visibility and cause the air to appear hazy when levels are elevated. Outdoor PM levels are most likely to be elevated on days with little or no wind or air mixing. IFM series ensures the purification rate of 2.5 is over 99% within 2 hours.



Continuous Formaldehyde Solution

The indoor unit is equipped with formaldehyde filtration, effectively decomposing harmful formaldehyde molecules in the air.



Continuous Removal

High efficiency absorption formaldehyde function removes allergens & bacteria. The removal rate is 90%.



Strong Decomposition

Quickly captures the formaldehyde, the coincide with the catalyst decomposes formaldehyde as water and dioxide.



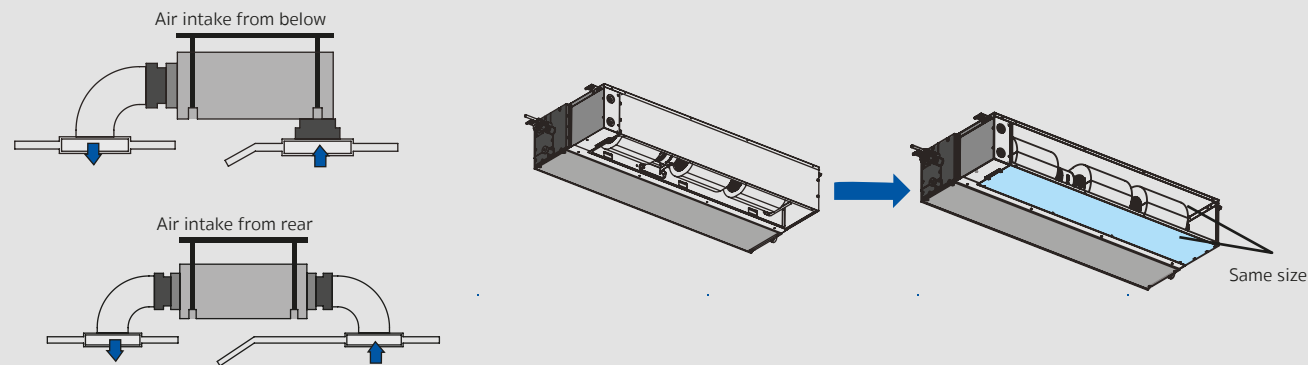
Simple Installation

Formaldehyde filter assemblies are simple and convenient.



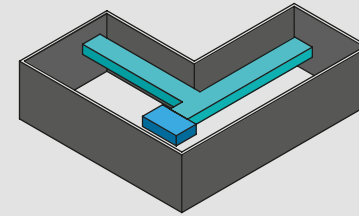
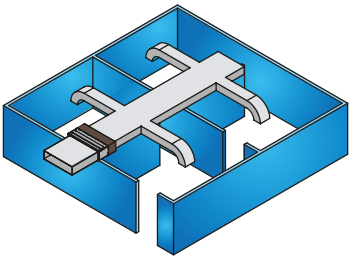
Mid ESP Duct Flexible Air Intake Option

Air intake from rear is standard but from bottom is optional. The size of the plate from bottom is the same as the flange from back which makes it convenient to change installation style according to requirements.

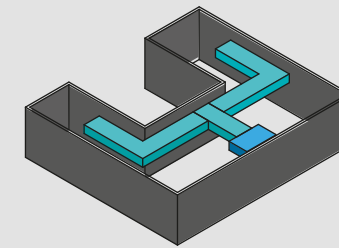


High ESP Duct : Applicable to a Variety of Rooms

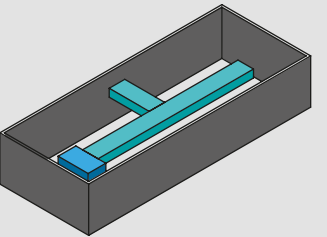
High ESP makes the air supply distance up to 50m. Specific ESP design can be applied to various room types easily like L type / U type space. The air outlet can be set separately from the indoor unit so the air flow can be equally distributed even if the room is in irregular structure.



Room 1 : L Type



Room 2 : U Type



Room 3 : Narrow Type

Ducted Type – Medium Static Pressure

Model		WDM56IFM20E	WDM71IFM20E	WDM90IFM20E	WDM140IFM20E
Nominal Cooling Capacity	W	5600	7100	9000	14000
Nominal Heating Capacity	W	6300	8000	10000	16000
Rated Input Power	W	49	59	98	169
Rated Input Current	A	0.33	0.52	0.83	1.36
External Static Pressure	Pa	10 (0/30/50)	10 (0/30/50)	50 (30/80/100)	50 (30/80/100)
Sound Pressure Level (High, Medium and Low)	db (A)	33/30/28	34/31/29	36/34/33	38/37/35
Air Volume (High, Medium and Low)	CMH	800/680/570	1000/830/690	1400/1200/980	2200/1830/1520
Liquid Pipe Connection Size	mm (in)	Ø6.35 (1/4")	Ø9.52 (3/8")	Ø9.52 (3/8")	Ø9.52 (3/8")
Gas Pipe Connection Size	mm (in)	Ø12.7 (1/2")	Ø15.88 (5/8")	Ø15.88 (5/8")	Ø15.88 (5/8")
Condensate Water Pipe Size	mm	Ø20.5	Ø20.5	Ø20.5	Ø20.5
Unit Size (W x D x H)	mm	900 x 450 x 210	1150 x 450 x 210	1150 x 600 x 300	1450 x 600 x 300
Unit Weight	kg	19.8	23	40.5	42
Power Supply		220V~/50Hz	220V~/50Hz	220V~/50Hz	220V~/50Hz

Notes

- Cooling Capacity:** Indoor temperature 27°C DB/19°C WB; Outdoor temperature: 35°C DB/ 24°C WB.
- Heating Capacity:** Indoor temperature 20°C DB; Outdoor temperature: 7°C DB/ 6°C WB.
- We can guarantee the operation only within 130% combination. If you want to connect more than 130% combination, please contact us and discuss the requirement.
- Anechoic chamber conversion value, measured in test room. During actual operation these values are somewhat higher as a result of ambient condition.
- The above designs and specifications are subject to change without prior notice. For final specifications please refer to technical specification provided by sales representative.
- Sound values are measured in a semi-anechoic room, at a position 1m in front of the unit and 1.3m above the floor.
- Choosing fuse or breaker according to MFA and electrical wiring according to MCA.
- The above data may be changed without notice for future improvement on quality and performance.




Ducted Type – High Static Pressure

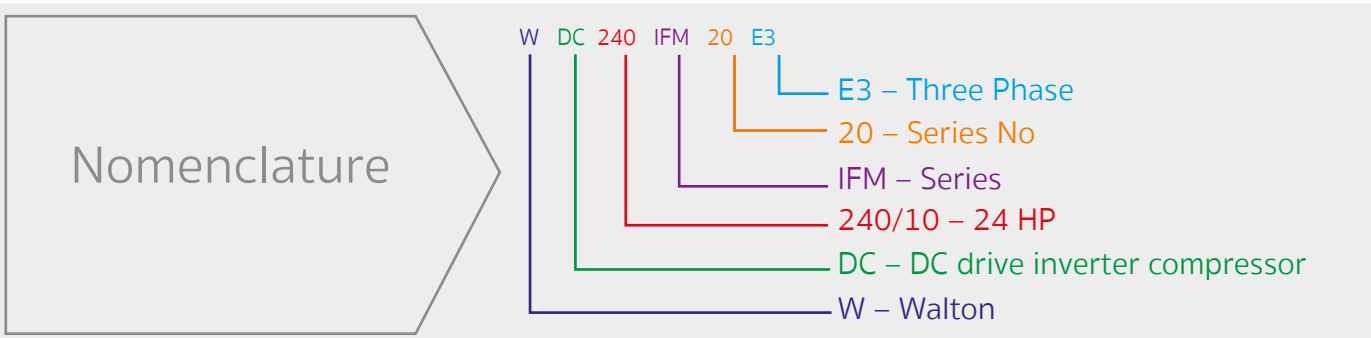
Model		WDH140IFM20EX	WDH175IFM20EX	WDH224IFM20EX	WDH280IFM20EX
Nominal Cooling Capacity	W	14000	17500	22400	28000
Nominal Heating Capacity	W	16000	19500	25000	31000
Rated Input Power	W	390	410	910	1020
Rated Input Current	A	1.85	1.95	2.08	2.25
External Static Pressure	Pa	50 (30/80)	50(30/80)	200	200
Sound Pressure Level (High, Medium and Low)	db (A)	40/38/36	47/43/39	54	57
Air Volume (High, Medium and Low)	CMH	2200/1830/1520	3200/2900/2600	4100	4320
Liquid Pipe Connection Size	mm (in)	Ø9.52 (3/8")	Ø9.52(3/8")	Ø9.52(3/8")	Ø12.7 (4/8")
Gas Pipe Connection Size	mm (in)	Ø15.88 (5/8")	Ø15.88(5/8")	Ø22.23(7/8")	Ø22.23 (7/8")
Condensate Water Pipe Size	mm	Ø20.5	Ø20.5	Ø20.5	Ø20.5
Unit Size (W x D x H)	mm	1450 x 600 x 300	1450 x 600 x 300	1760 X 958 X 515	1760 X 958 X 515
Unit Weight	kg	48	48	131	133
Power Supply		220V~/50Hz	220V~/50Hz	380V/3N~/50Hz	

Notes

- Cooling Capacity:** Indoor temperature 27°C DB/19°C WB; Outdoor temperature: 35°C DB/ 24°C WB.
- Heating Capacity:** Indoor temperature 20°C DB; Outdoor temperature: 7°C DB/ 6°C WB.
- We can guarantee the operation only within 130% combination. If you want to connect more than 130% combination, please contact us and discuss the requirement.
- Anechoic chamber conversion value, measured in test room. During actual operation these values are somewhat higher as a result of ambient condition.
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- Choosing fuse or breaker according to MFA and electrical wiring according to MCA.
- The above data may be changed without notice for future improvement on quality and performance.

Outdoor Unit

Capacity	8 HP (6.4 TR) to 28 HP (22.4 TR)	30 HP (24 TR) to 56 HP (44.8 TR)	58 HP (46.4 TR) to 84 HP (67.2 TR)
Modular Outdoor Unit	 Single Module	 Double Module	 Triple Module



Outdoor Units Line-up

Appearance													
	Capacity	8 HP	10 HP	12 HP	14 HP	16 HP	18 HP	20 HP	22 HP	24 HP	26 HP	28 HP	
Single Module	8 HP	*											
	10 HP		*										
	12 HP			*									
	14 HP				*								
	16 HP					*							
	18 HP						*						
	20 HP							*					
	22 HP								*				
	24 HP									*			
	26 HP										*		
28 HP											*		
Double Module	30 HP			*								*	
	32 HP				*							*	
	34 HP				*				*				
	36 HP						**						
	38 HP	*										*	
	40 HP		*									*	
	42 HP			*								*	
	44 HP				*		*					*	
	46 HP						*					*	
	48 HP							*				*	
50 HP								*			*		
52 HP									*		*		
54 HP										*	*		
56 HP											**		
Triple Module	58 HP			*			*					*	
	60 HP				*		*					*	
	62 HP			*					*			*	
	64 HP						**					*	
	66 HP	*										**	
	68 HP		*									**	
	70 HP			*								**	
	72 HP				*		*					**	
	74 HP					*	*					**	
	76 HP							*				**	
78 HP								*			**		
80 HP									*		**		
82 HP										*	**		
84 HP											**		

Outdoor Technical Specification

Model		WDC80IFM20E3	WDC100IFM20E3	WDC120IFM20E3	WDC140IFM20E3	WDC160IFM20E3	WDC180IFM20E3
Nominal Cooling Capacity	KW	25.2	28	33.5	40	45	50.4
Nominal Heating Capacity	KW	28	31.5	37.5	45	50.6	56.5
Nominal Cooling Power	KW	6.3	7.35	9.39	10.98	12.75	14.83
Nominal Heating Power	KW	6.39	7.6	9.87	11.81	13.41	15.41
EER/COP		4/4.38	3.8/4.14	3.56/3.8	3.64/3.8	3.52/3.77	3.4/3.66
Maximum Operating Current	A	26.4	26.4	26.4	29.6	37.7	37.7
Power Supply		380V/3N/50Hz			380V/3N/50Hz		
Air Volume	CMH	9700	10600	10600	14000	14700	14700
Sound Pressure Level	dB (A)	54	58	58	60	60	61
Unit Size in mm	width	950	950	950	1340	1340	1340
	Depth	780	780	780	780	780	780
	Height	1650	1650	1650	1650	1650	1650
Liquid Pipe Connection Size	mm (in)	9.52 (3/8")	12.7(1/2")		12.7(1/2")		
Gas Pipe Connection Size	mm (in)	22.23 (7/8")			28.6 (1-1/8")		
Operating Temperature Range		Cooling: -15~53°C; Heating: -25~28°C			Cooling: -15~53°C; Heating: -25~28°C		
Refrigerant		R410A			R410A		
Unit Weight	kg	218	219	220	259	307	323

Model		WDC200IFM20E3	WDC220IFM20E3	WDC240IFM20E3	WDC260IFM20E3	WDC280IFM20E3
Nominal Cooling Capacity	KW	56	61.5	68	73	78.5
Nominal Heating Capacity	KW	63	69	75	81.5	87.5
Nominal Cooling Power	KW	17.65	20.45	19.95	21.95	25.2
Nominal Heating Power	KW	17.04	19.72	20.49	23.32	26.2
EER/COP		3.17/3.69	3/3.49	3.4/3.66	3.32/3.49	3.11/3.33
Maximum Operating Current	A	51.8	51.8	52.4	57	57
Power Supply		380V/3N/50Hz			380V/3N/50Hz	
Air Volume	CMH	16500	16500	22000	22000	22000
Sound Pressure Level	dB (A)	62	62	62	62	63
Unit Size in mm	width	1340	1340	1680	1680	1680
	Depth	780	780	780	780	780
	Height	1650	1650	1650	1650	1650
Liquid Pipe Connection Size	mm (in)	15.88 (5/8")		15.88 (5/8")	19.05 (3/4")	
Gas Pipe Connection Size	mm (in)	28.6 (1-1/8")			28.6 (1-1/8")	34.9 (1-3/8")
Operating Temperature Range		Cooling: -15~53°C; Heating: -25~28°C			Cooling: -15~53°C; Heating: -25~28°C	
Refrigerant		R410A			R410A	
Unit Weight	kg	368	369	445	457	457

Notes

- Cooling Capacity:** Indoor temperature 27°C DB/19°C WB; Outdoor temperature: 35°C DB/ 24°C WB.
- Heating Capacity:** Indoor temperature 20°C DB; Outdoor temperature: 7°C DB/ 6°C WB.
- We can guarantee the operation only within 130% combination. If you want to connect more than 130% combination, please contact us and discuss the requirement.
- Anechoic chamber conversion value, measured in test room. During actual operation these values are somewhat higher as a result of ambient condition.
- The above designs and specifications are subject to change without prior notice. For final specifications please refer to technical specification provided by sales representative.
- Sound values are measured in a semi-anechoic room, at a position 1m in front of the unit and 1.3m above the floor.
- Choosing fuse or breaker according to MFA and electrical wiring according to MCA.
- The above data may be changed without notice for future improvement on quality and performance.

Outdoor Unit Type		WDC300IFM20E3	WDC320IFM20E3	WDC340IFM20E3	WDC360IFM20E3	WDC380IFM20E3	WDC400IFM20E3
Recommended Combination	HP	18+12	18+12	22+12	18+18	18+10	28+12
Nominal Cooling Capacity	KW	83.9	90.4	95.0	100.8	106.5	112.0
Nominal Heating Capacity	KW	94.0	101.5	106.5	113.0	119.0	125.6
Nominal Cooling Power	KW	24.2	25.8	29.8	29.7	32.6	34.6
Nominal Heating Power	KW	25.3	27.2	29.3	30.8	33.8	36.1
Maximum Operating Current	A	64.1	67.3	78.2	75.4	83.4	83.4
Power Supply		380V3N/50Hz					
Air Volume	m ³ /h	25300	28700	27100	29400	32600	32600
Noise	dB (A)	63	64	64	64	64	64
Unit Size in mm	width	1340+950	1340+1340	1340+950	1340+1340	1680+950	1680+950
	Depth	780	780	780	780	780	780
	Height	1650	1650	1650	1650	1650	1650
Liquid Pipe Connection Size	mm (in)	19.05(3/4")					
Gas Pipe Connection Size	mm (in)	28.6 (1-1/8")			38.1 (1-1/8")		
Operating Temperature Range		Cooling: -15~53°C; Heating: -25~28°C					
Refrigerant		R410A					
Unit Weight	kg	543	582	589	646	676	677

Outdoor Unit Type		WDC300IFM20E3	WDC320IFM20E3	WDC340IFM20E3	WDC360IFM20E3	WDC380IFM20E3	WDC400IFM20E3
Recommended Combination	HP	28+14	28+16	28+18	28+20	28+22	28+24
Nominal Cooling Capacity	KW	118.5	123.5	128.09	134.5	140.0	146.5
Nominal Heating Capacity	KW	132.5	138.1	144.0	150.5	156.5	162.5
Nominal Cooling Power	KW	36.2	38.0	40.0	42.9	45.7	45.2
Nominal Heating Power	KW	38.0	39.6	41.6	43.2	45.9	46.1
Maximum Operating Current	A	86.6	94.7	94.7	108.8	108.8	109.4
Power Supply		380V3N/50Hz					
Air Volume	m ³ /h	36000	36700	36700	38500	38000	44400
Noise	dB (A)	65	65	65	66	66	66
Unit Size in mm	width	1680+1340	1680+1340	1680+1340	1680+1340	1680+1340	1680+1680
	Depth	780	780	780	780	780	780
	Height	1650	1650	1650	1650	1650	1650
Liquid Pipe Connection Size	mm (in)	19.05(3/4")					
Gas Pipe Connection Size	mm (in)	28.6 (1-1/8")			38.1 (1-1/8")		
Operating Temperature Range		Cooling: -15~53°C; Heating: -25~28°C					
Refrigerant		R410A					
Unit Weight	kg	716	764	780	825	826	902

Notes

- Cooling Capacity:** Indoor temperature 27°C DB/19°C WB; Outdoor temperature: 35°C DB/ 24°C WB.
- Heating Capacity:** Indoor temperature 20°C DB; Outdoor temperature: 7°C DB/ 6°C WB.
- We can guarantee the operation only within 130% combination. If you want to connect more than 130% combination, please contact us and discuss the requirement.
- Anechoic chamber conversion value, measured in test room. During actual operation these values are somewhat higher as a result of ambient condition.
- The above designs and specifications are subject to change without prior notice. For final specifications please refer to technical specification provided by sales representative.
- Sound values are measured in a semi-anechoic room, at a position 1m in front of the unit and 1.3m above the floor.
- Choosing fuse or breaker according to MFA and electrical wiring according to MCA.
- The above data may be changed without notice for future improvement on quality and performance.

The Masterpiece from HVAC Experts

IFM SERIES



Commercial Building



Theater



Industry



Hospital



Airport



Hotel & Restaurant

Features

- Centralized Monitoring System
- Energy Saving Technology : Adopt " Smooth Driving Control "
- Enhanced Vapor Injection (EVI) Technology
- DC Drive Inverter Scroll Compressor
- High Comprehensive Efficiency with IPLV
- High Energy Efficiency Ratio (EER)
- Two Stage Sub-cooling
- Smart Oil Management Technology
- Refrigerant PCB Cooling Technology
- Long Piping Length
- Auto Dust Removal Technology
- Maximum Combination Ratio up to 200%

The Masterpiece from HVAC Experts

Comfort without Compromise

AIR COOLED MODULAR CHILLERS
Hydronic Care Series: 35-130KW



Commercial Building



Hospital



Airport



Industry



Hotel & Motel



Theater

Technical Specification of Air Cooled Modular Scroll Chiller

Model		WACTSR035HB-HC	WACTSR065HA-HC	WACTSR130CA-HC	
Cooling capacity	kW	35	65	130	
	TR	10	18.5	37	
Heating capacity	kW	37	70	--	
	TR	10.5	20	--	
Power supply		V-Ph-Hz 380-3-50			
Power input	Cooling	kw	11.5	19.9	41.9
	Cooling rated current	amp	19.0	38.2	75.5
	Heating	kw	11.7	20.0	--
	Heating rated current	amp	20.0	38.5	--
Maximum input power		kw	14.0	30.2	57.6
Maximum input current		amp	27	50	100
Cooling EER		kw/kw	3.0	3.2	3.1
Heating COP		kw/kw	3.2	3.5	--
Refrigerant	Type	--	R-410a		
	Charge amount	kg	6	11.5	21
Compressor	Type	--	Hermetic Scroll		
	Quantity	--	1	2	2
Evaporator (water side heat exchanger)	Type	--	High efficiency DX type shell & tube		
	Water flow rate	m ³ /h	5.7	11.4	22.4
	Water pressure drop	kPa	30	30	45
	Connection water pipe size	mm	DN40	DN50	DN76
Condenser (air side heat exchanger)	Type	--	V-shape fin & tube		
	Fan quantity	--	1	2	2
	Total airflow	m ³ /h	13000	26000	48000
	Current	amp	2.2 x 1	2.2 x 2	4.3 x 2
	Power	kw	0.75 x 1	0.75 x 2	2.2 x 2
Unit dimension (L x D x H)		mm	1400 x 1000 x 1700	2060 x 1000 x 2000	2250 x 1250 x 2200
Packing dimension (L x D x H)			1410 x 1005 x 1810	2070 x 1005 x 2155	2260 x 1255 x 2355
Net weight		Kg	350	650	1000
Operating weight		Kg	400	700	1100

Notes

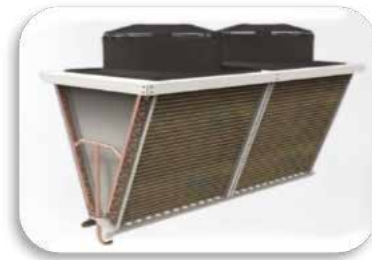
1. The above specifications are based on below rated condition: Cooling mode: Ambient dry/wet bulb temperature 35°C/24°C, water inlet/outlet temperature 12°C/7°C Heating mode: Ambient dry/wet bulb temperature 7°C/6°C, water inlet/outlet temperature 40°C/45°C.
2. Min./Max operating ambient temperature range for cooling 5°C/43°C, for heating -10°C/21°C.
3. Walton has right to change the above data without any prior notice.

Features of Air Cooled Modular Chiller



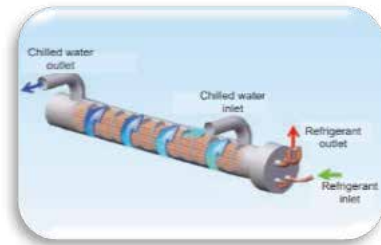
Highly Efficient Scroll Compressor

The unit adopts a famous brand of hermetic scroll compressor, which is highly energy efficient and its operations are stable with low noise & slight vibration that leads long service life.



V-shaped Condenser

The v-shaped condenser is constructed of internally grooved copper tube & hydrophilic aluminum fins combined with premium axial impellers that ensure more effective air distribution as well as increase the heat transfer and thus improve unit performance.



Shell & Tube Evaporator

High efficiency shell & tube heat exchanger designs are not only greatly enhanced the heat transfer but also safer and more reliable for operation, have better corrosion resistance and have higher water tolerance quality.



Environment Friendly Refrigerant

Eco-friendly refrigerant R-410A with zero ozone depletion potential could help to boost the unit performance and lower the energy consumption.



Flexible Modular Design

Units are able to combine with the same or different models to meet the need of large cooling applications easily.



Electronic Expansion Valve (EXV)

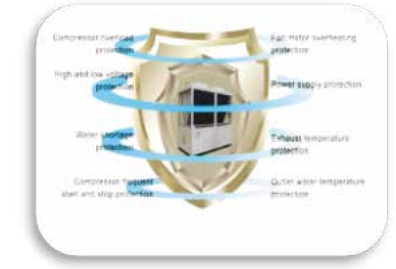
The unit adopts the 480-steps electronic expansion valve of a premium brand for precise adjustment of refrigerant flow, thus the refrigerant in the system is dynamically adjusted to suit the load demands in a fast and accurate way to improve the unit energy efficiency greatly.

Features of Air Cooled Modular Chiller



Microcomputer Control Panel

Fully upgraded microcomputer based control panels with years of experience in R&I and design, which combine more functions including phase sequence detection, current detection and RS-485 communication interface that deliver stronger and universal performance.



Multiple Protection Functions

The unit has multiple safety protection functions to guarantee the stable and reliable operation of the unit and the systems. The unit is equipped with a water flow switch which simplifies the installation process and convenient solution for customers.



Safety Protection



Low Noise



Perfect Cooling



High EER



Eco Friendly

OUR HVAC IMPLEMENTED PROJECTS



HVAC Project List

SL	Projects	Location	Project Type	Capacity (TR)
1	Saif Plastic Ind. Ltd	Tongi	Chiller	20
2	Bashundhara Oil and Gas	Keraniganj	VRF	299.7
3	Isckon Mondir	Shamibag	VRF	116.7
4	Sungard Packaging	Tongi	VRF	25
5	UPS (Air Alliance)	Tongi	VRF	54
6	DW Navy Ctg	Chattogram	Precision AC	38
7	Sungard Packaging	Tongi	Chiller	37
8	MES (Navy)	Chattogram	VRF	124.9
9	Askan Development Ltd.	Jatrabari	VRF	700
10	Astha Super Shop	Shyamoli	VRF	35
11	Police Super Shop	Naogaon	VRF	57
12	PHP	Chattogram	VRF	73
13	H.H. Mart	Savar	VRF	57
14	Dewan Villa	Chandra	VRF	57
15	Knit Asia	Joydebpur	VRF	57
16	BMTF (Bangladesh Machine Tools Factory)	Joydebpur	VRF	25.6
17	Knit Asia	Joydebpur	VRF	19
18	Nakshi Tower	Feni	VRF	307
19	Accord Trade & Technology	Joydebpur	VRF	17.6
20	Garden Resort	Tangail	VRF	38
21	TBN BD LTD	Shyamoli	VRF	24.2
22	Army Pharma (BMTF)	Joydebpur	Chiller, Clean Room	120
23	Redmin Industries Ltd	Badda	VRF	57.6
24	SQ Station	Valuka	VRF	62
25	Jahura Akram Mem. Hospital	Pirojpur	VRF	140
26	Microbiology Lab	Joydebpur	Chiller	8.9
27	Fly Fair	Bashundhara	VRF	41.4
28	Swarga Chaya	Bashundhara	VRF	19.3
29	Caritas	Rajarbag	VRF	175
30	Kalmegh Club House	Gazipur	VRF	175
31	Central Workshop Dhaka Cantonment	Mirpur	Precision AC	10
32	AFIP (Armed Force Institute of Pathology)	Mirpur	Chiller	1200
33	Police Trust Industrial Products	Hatir Jhil	Precision AC	10
34	Livens SweateX	Savar	VRF	19.2
35	Akij Food & Beverage Ltd	Manikganj	VRF	35
36	Kacharibari (Beximco Group)	Dohar	VRF	161.6
37	Teknaf Dormitory (United Group)	Teknaf	VRF	54.4
38	One Direction	Bashundhara	VRF	115.2
39	Total Food	Khulna	VRF	59.1
40	Ramu Cantonment	Cox Bazar	VRF	76
41	Aman Garments	Savar	VRF	19.2
42	Redmin Industries Ltd	Gazipur	Chiller	42
43	Ramu Cantonment phase 2	Cox Bazar	VRF	64
44	Army Artillery Center-Halishahar	Chattogram	Roof top Package	130
45	Bangladesh Bank	Motijhil	Chiller	650
46	Remark	Gazipur	Chiller	247.2
47	Kacharibari phase 2	Dohar	VRF	25.6
48	JM Fabrics Ltd	Joydebpur	VRF	60.6
49	Pick & Pay	Baridhara	VRF	57.6
50	Shajinaz Exim Pack Ltd	Chattogram	VRF	96.8
51	S&J Construction	Joydebpur	Chiller Local Work	NA
52	CA Knitwear Ltd	Savar	VRF	76.8
53	Utshab Super Market	Chattogram	VRF	96
54	Medix Hospital	Dhanmondi	VRF	19.2

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