Commercial Air Conditioners **2023**

Healthy VRF

Boasting industry-leading

CNAS-certified Enthalpy Difference Labs

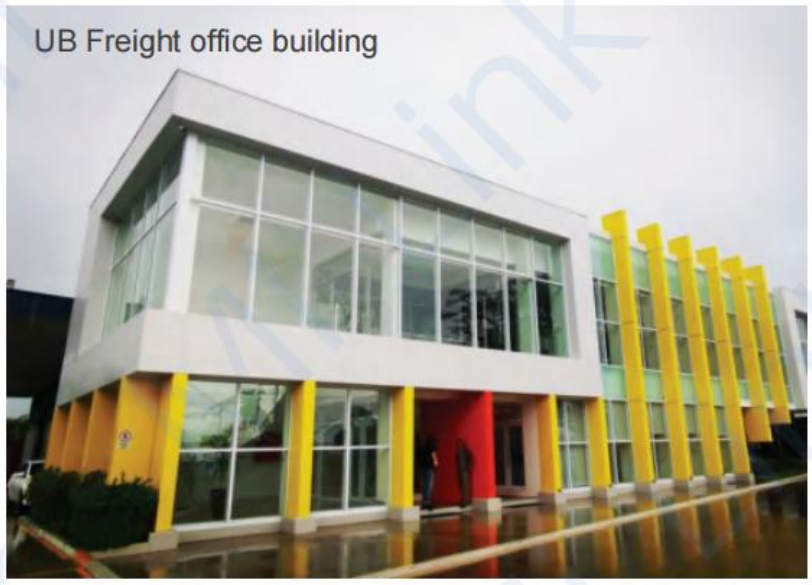
In accordance with GB, IEC, TUV and CSA standards, adhering to the principles of impartiality, independence and scientific standards as well as people-oriented.


中国合格评定国家认可委员会
实验室认可证书

Application Solutions

▶ Office Complexes

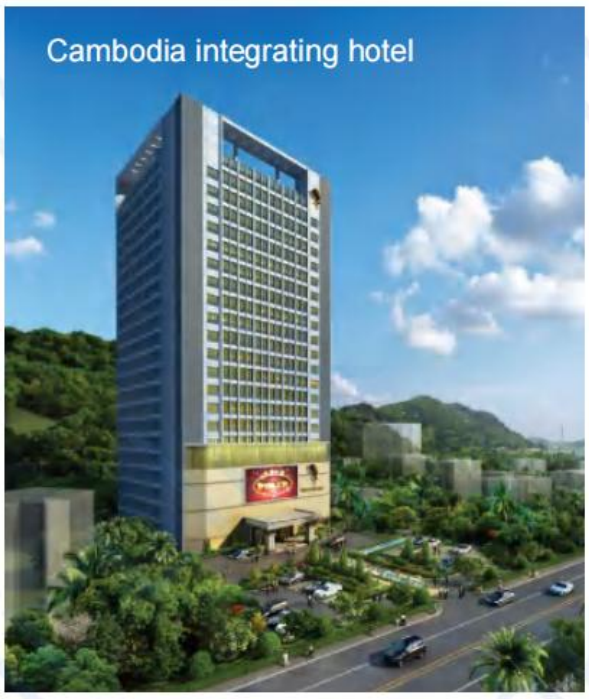
Enjoy comfort while working



▶ Hotels & Shopping Malls

Increase your business, not your bills

Hotels



Shopping malls

▶ Factories

One for Every Factory

Indonesia Sinar Meadow factory

Vietnam Bitland factory

▶ Other Applications

Meeting all expectations

Hospitals

Schools

Durban University of Technology

Airports

Hangzhou Xiaoshan International Airport

INDEX

Outdoor Unit Lineup

HP			3	4	4.5	5	6	6.5	7	8	9	10	12	14
Air cooled - Heat pump	Independent MLES-DST/ DSA									●	●	●	●	●
	Modular MLES-DXT/ DXA									●		●	●	
	Side discharge MLES-CSREA									●		●	●	
	Top discharge MLES-CSRYA									●		●	●	●
	Mini VRF-MLES - CSREC		●	●	●	●	●	●	●	●	●			
Air cooled - Cooling only	MLES-CXC									●		●	●	●

● Single unit

● Modular units

Outdoor Unit Lineup

HP			16	18	20	22	24	26	28	30	32	34	36-48	48-102
Air cooled - Heat pump	Independent MLES-DST/ DSA		●	●	●	●	●	●	●	●	●	●		
	Modular MLES-DXT/ DXA		●	●	●	●	●	●	●	●	●	●	●	●
	Side discharge MLES-CSREA													
	Top discharge MLES-CSRYA		●											
	Mini VRF-MLES - CSREC													
Air cooled - Cooling only	MLES-CXC		●	●	●	●	●	●	●	●	●	●	●	

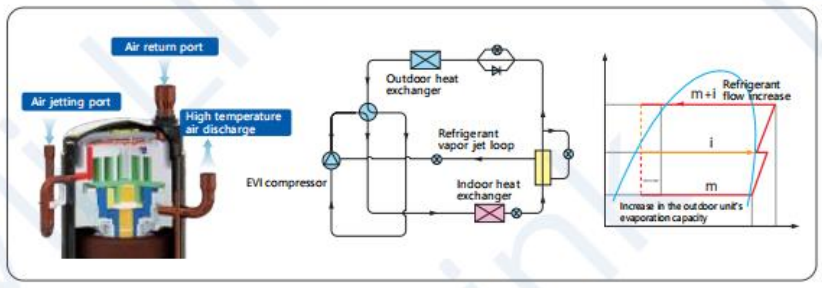
● Single unit

● Modular units

High Efficiency

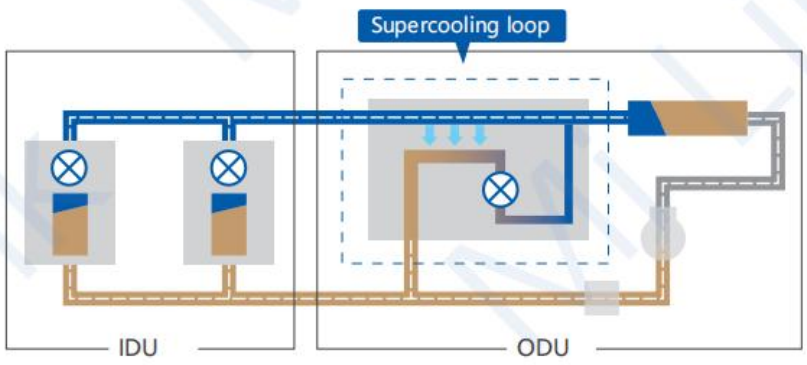
High Efficiency Enhanced Vapor Injection(EVI)Compressor

The enhanced vapor injection DC inverter compressor increases refrigerant circulation and improves both cooling and heating capacity.



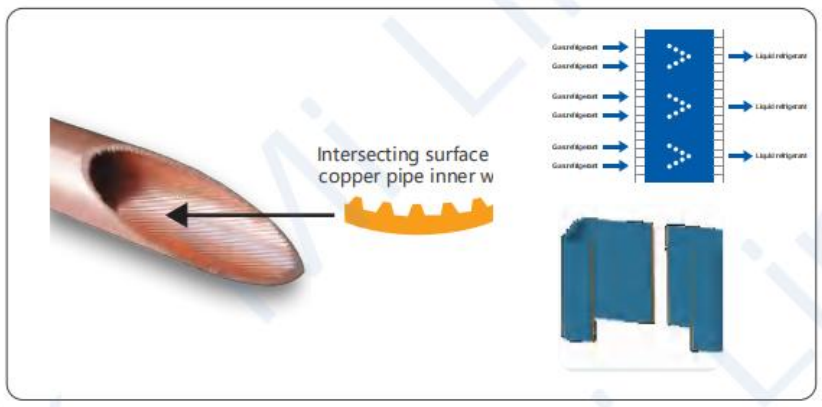
Two Stage Subcooling

Plate Heat Exchanger as a secondary intercooler boosts up refrigerant subcooling, achieving 12°C stage-1 subcooling, and 20°C stage-2 subcooling. The total subcooling degree reaches 32°C.



High Efficiency double C-Type Heat Exchanger

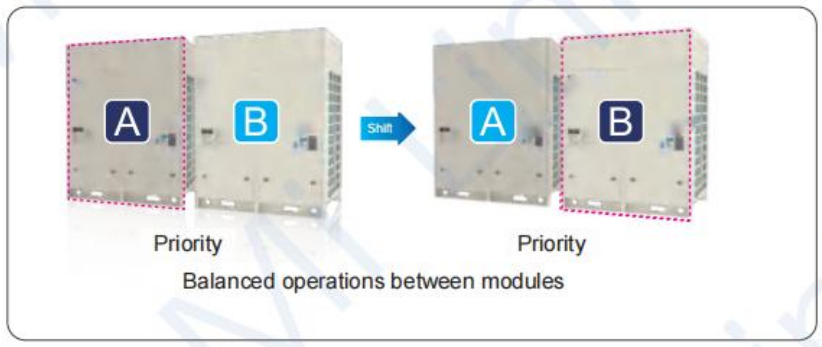
- High efficiency copper pipe with internal thread
- Corrugated fins with openings ,increasing heat exchanging area 15%.
- Specially designed TWO-TO-ONE refrigerant loop, decreasing refrigerant flow resistance.
- Double C type heat exchanger with 6 sides heat exchanging.

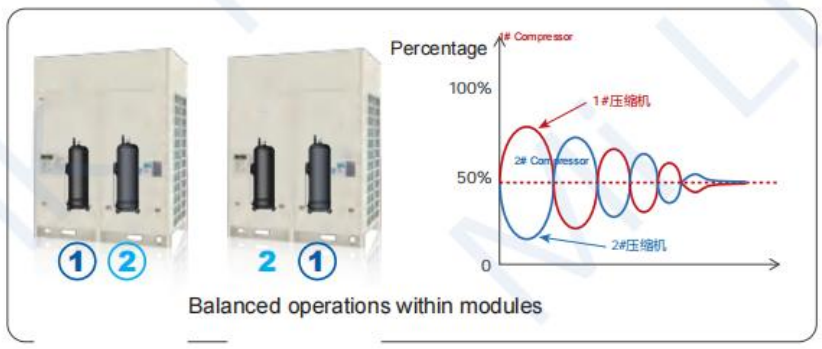


High Reliability

Duty Cycling

Duty cycling equalizes the running time of the outdoor units in a multiple-unit system and of the compressors in each unit,significantly extending compressor lifespan.





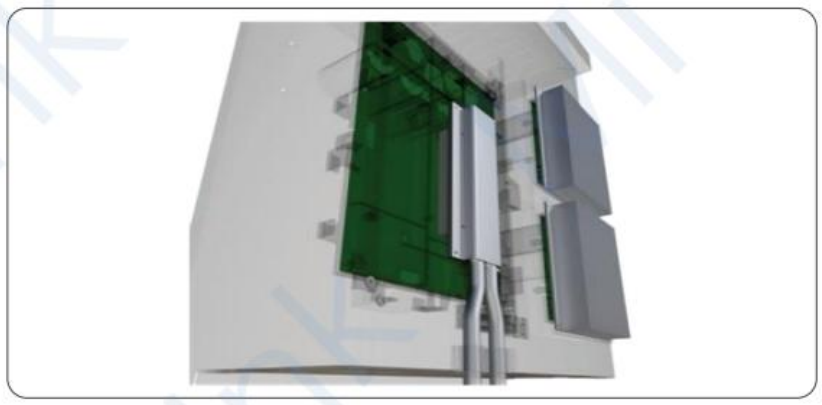
8-Stage Oil Return

Eight stages oil return technology ensure safe and reliable running of the system and achieve 99.99% oil return.

- Compressor internal oil separation and return technology
- Staged oil storage
- Speed-difference cyclone-type centrifugal oil separation
- Equal-resistance gas-liquid separator
- No oil balance pipe
- Smart oil balance design
- Precise oil return control
- Dual-mode intelligent oil return control

Micro-HEX technology

With the innovative Micro-HEX refrigerant-cooling scheme and the unique aluminum board heat dissipation technology, the temperature difference between the IPM module and the refrigerant (usually 30~55°C) can be reduced to less than 5°C, guaranteeing the stable and safe running of the control system.



Back-up Operation

• Compressor back-up

When one of the ODU compressors is faulty, the other compressor can start emergency operation.

• Frequency converter back-up

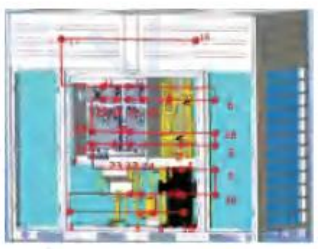
When one of the ODU frequency converter is faulty, the other one can start emergency operation.

• Fan back-up

When one of the ODU fans is faulty, the other fan can start emergency operation.

• Sensor back-up

Equipped with 28 sets sensors + 7 sets VR sensors. When one sensor is faulty, can be replaced with other sensors.



• Unit back-up

For a modular unit, when one of the ODU is faulty, the other ODU can start emergency operation.

Electrical Components Highly Integrated Design

Multiple electrical components are integrated into a single board, the integrated design can reduce the wiring connections greatly, making the electrical wiring more simple and reliable.

Precise detection of refrigerant pressure

The high/low pressure sensor is used to monitor the system refrigerant pressure in real time and make sure that the pressure perfectly fit the DC inverter module, thus guaranteeing more stable operation of the unit.

Multiple Protection Function

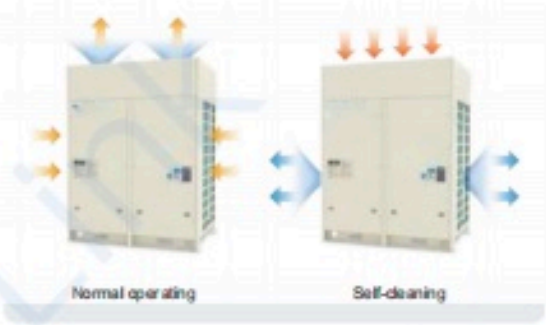
Multiple protection function, such as safe ground protection, voltage protection, temperature protection, current protection, pressure protection, compressor overload protection, motor overheat protection, etc., ensuring the system consistently safe and reliable operation.

Auto Snow-blowing Function

The innovatively designed auto snow-blowing function enables the outdoor unit to prevent the accumulation of snow by itself.

▶ Dust-clean Function

The innovatively designed dust-clean function enables the outdoor unit to prevent the dust by itself.



▶ Anti-corrosion Protection

- To meet the requirements in severe conditions with high humidity and high level of salt fog in places near seas and rivers, ODU casing adopts thickened sheet metal and multiple advanced spraying techniques to effectively improve the corrosion resistance performance and extend the service life of the air conditioning unit.

Screws / bolts / gaskets
500h of neutral salt mist

Fan motor
Standard:300h of neutral salt mist
Special: 500h of neutral salt mist

Painted sheet metal 1000h of neutral salt mist

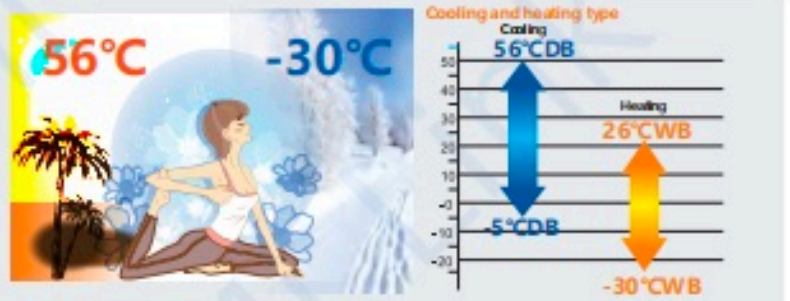
▶ Wide Operation Range

Wide Capacity Range

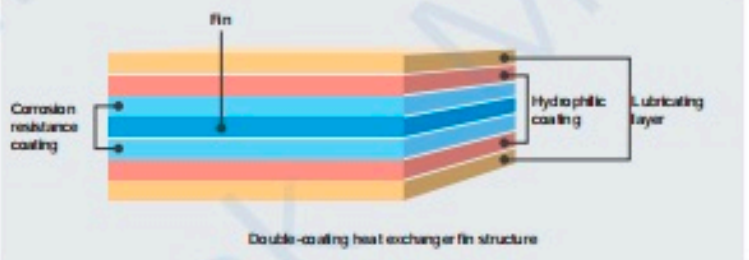
Our VRF has an extensive capacity ranging from 3HP to 102HP, meeting all customer requirements from small to large buildings.

Wide Temperature Range

With an ultra-wide operating range of the ODU (cooling: -5°C to +56°C; heating: -30°C to +26°C), the unit can flexibly respond to the changing outdoor temperature with enhanced stability and applicability.



- The corrosion-resistant layer can effectively slow down the corrosion of heat exchanger by corrosive gases. Thanks to the hydrophilic layer, frosting is less likely to happen during heating operation of the air conditioner, and the drainage during defrosting is more convenient. The lubricating layer can break the surface tension of water, speed up the dropping of condensing water or frostturned water.



Double-coating heat exchanger fin structure

- The IDU panel passed the anti-aging test. This ensures that, in everyday use, the panel does not age under strong UV, high temperature, or high humidity conditions.

Anti-UV aging test report of CVC product panel

Wide Range of Indoor Units

We provides 16 types and more 170 models of VRF indoor units to meet varied customer requirements in a wide range of locations including offices, shopping malls, hospitals and cinemas.

Enhanced Comfort

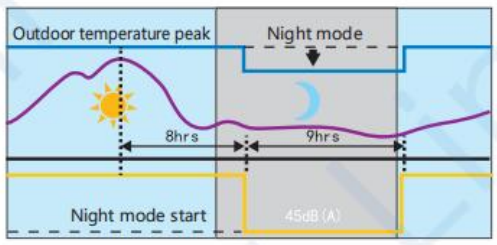
▶ Advanced Silent Technology

• 16 professional noise reduction technologies

1. High-efficiency low-noise DC inverter compressor
2. Stepless brushless DC motor
3. Motor bracket with off-resonance framer
4. Unique air injection noise reduction
5. Omni-directional acoustical enclosure
6. New guide ring
7. 750mm large fan
8. Refrigerant flow noise reduction
9. Low noise priority mode
10. Three silent modes: Smart/Night/Forced Silent
11. Compressor jet loop noise reduction
12. 180° sine wave control for quiet operation of compressor
13. 3D simulation pipe vibration reduction
14. Streamlined air outlet grille
15. ODU casing anti-vibration design
16. Fan anti-vibration with CFD

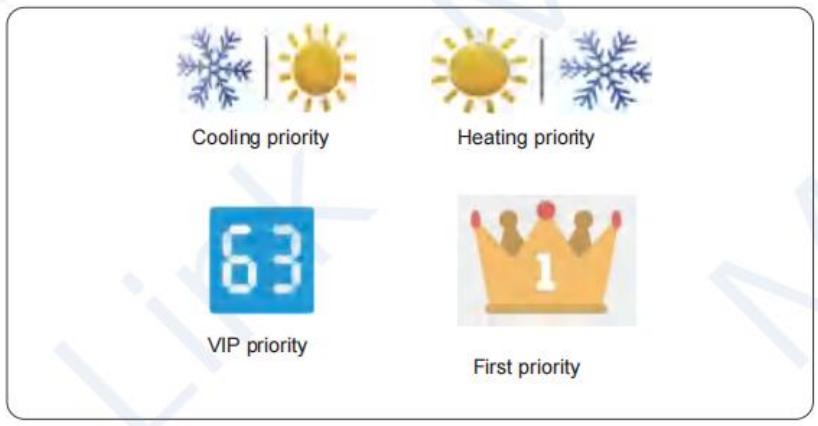
• 3 silent modes

Night silent mode
Forced silent mode
Smart silent mode



▶ Multiple Priority Modes

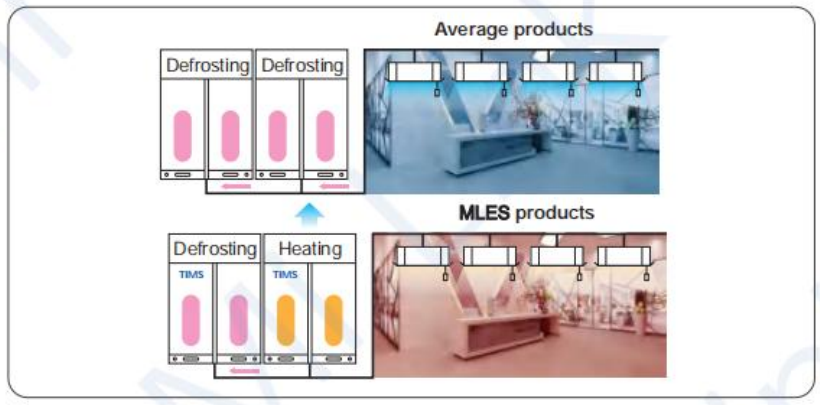
Multiple priority modes settings, provide more freedom and convenience to match the customer needs.



▶ Intelligent Defrosting Technology

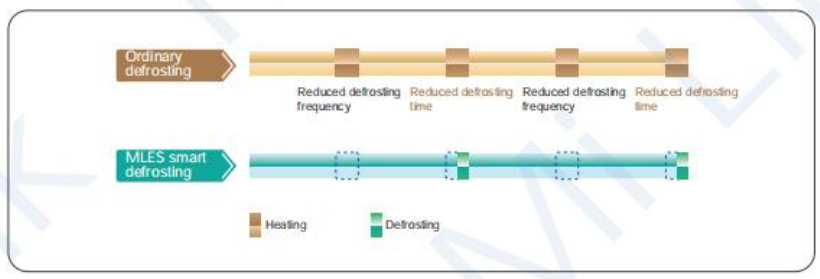
• MCC defrosting

The innovative MCC defrosting technology of Our adopts the non-stop method for defrosting. Modular units do not need to switch to the cooling mode for defrosting in winter. (patent No.: ZL 2013 2 0344961.5)



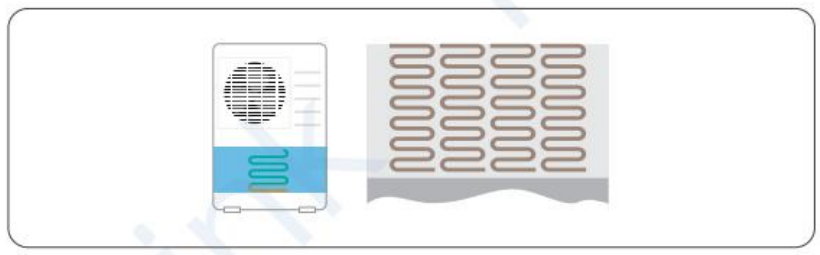
• Smart defrosting/defrosting self-adapting

Temperature sensors and pressure sensors in the system can effectively reduce the times of defrosting, prolong the heating period, and improve the heating efficiency. The defrosting duration can be shortened to 3 to 5 minutes.



• Anti-frosting at the bottom

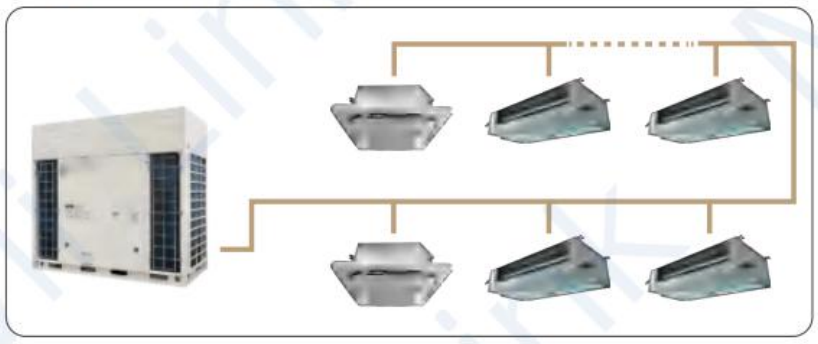
The ice water mixture at the bottom of unit can be completed removed during defrosting in heating mode in winter, so as to avoid impact on the heating capacity, improve the unit stability, and shorten the defrosting duration by 30%.



Easy Installation And Service

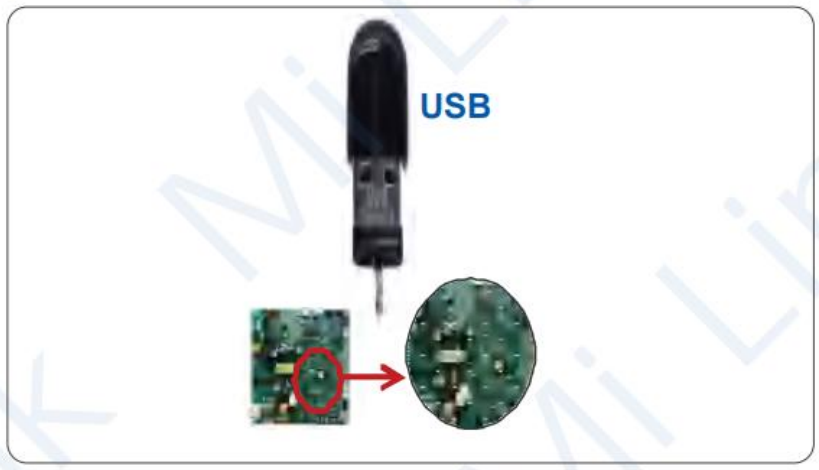
▶ Auto Addressing

Outdoor units can distribute addresses to indoor units automatically. Remote and wired controllers can be used to query or modify each indoor unit's address.



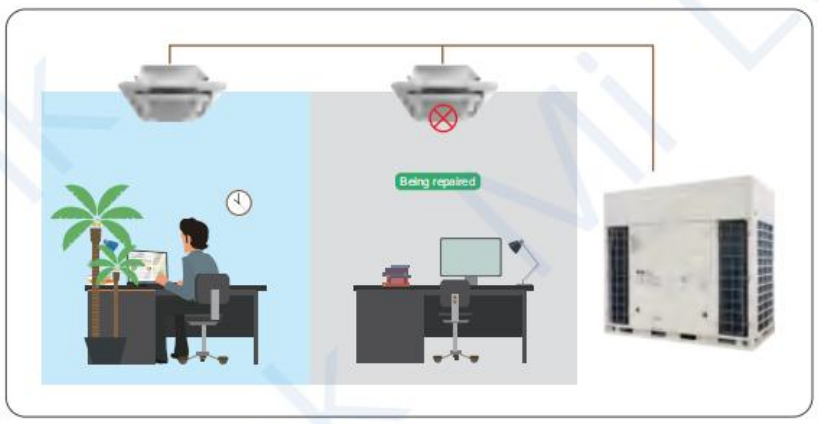
▶ Black Box Technology

The professional "black box" data saving device is provided to store data related to unit operation of up to ten years. In this way, data can be read conveniently during after-sales maintenance and debugging. Program upgrade can be intelligently completed by directly inputting the control program to the black box through relevant ports.



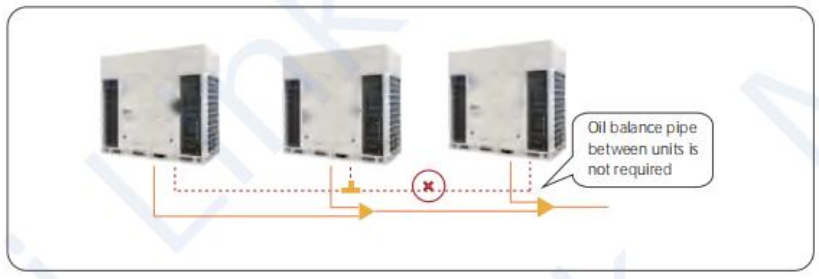
▶ Maintenance Fucntion

The maintenance function allows the shutdown of some indoor units without shutting down the whole VRF system. the maintenance function can be activated on site during maintenance period as the remaining indoor units continue to operate.



▶ Oil Balance Pipe Not Required

With the new oil management system, there is no need of oil balance pipe.



▶ Four-Way Piping Connection

A four-direction space is available for connecting pipes in various installation sites.

▶ High External Static Pressure

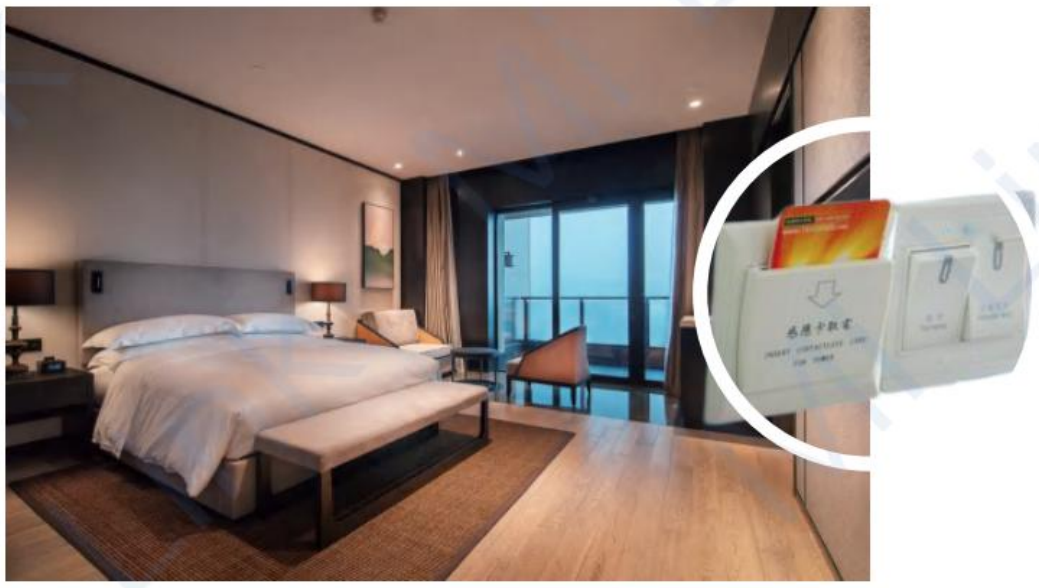
The static pressure of the outdoor unit can be up to 110Pa which facilitates installation of the unit on each floor of high-rise building or on balconies.

▶ Household-Based Charging System

For large apartments, hotels, multi-storey tenants, we can provide professional electricity billing system, according to the operation of indoor and outdoor machines, electronic valve opening and other information, to achieve scientific and reasonable data division.

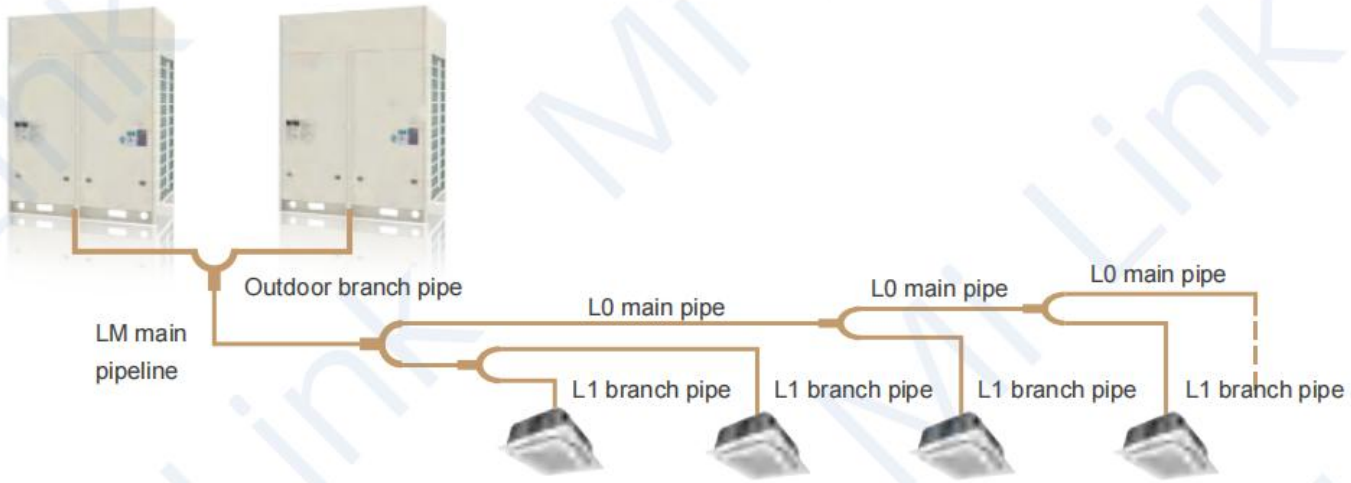
▶ Intelligent Interlocking For Hotels

Hotel door card can be selected in the application scenarios such as hotels. When the door card is inserted, the IDU can be controlled freely; when the door card is removed, the IDU is turned off automatically after a delay, making hotel management convenient and saving power.



Simple Design Of Refrigerant Piping

ODU main pipe and IDU branch pipe are selected based on the specifications table. When longer pipes are required, refer to the installation manual.



▶ Main pipeline design for modular series

Total Capacity (kW) of Downstream IDUs	Liquid Pipe Specifications (mm)	Gas Pipe Specifications (mm)	Branch pipe selection
X<16.8	φ9.52	φ15.88	MTBP4022TA
16.8≤X<22.5	φ9.52	φ19.05	MTBP4022TA
22.5≤X<33.0	φ9.52	φ22.23	MTBP4033TA
33.0≤X<46.0	φ12.7	φ25.40	MTBP4072TA
46.0≤X<67.0	φ15.88	φ28.58	MTBP4072TA
67.0≤X<94.0	φ19.05	φ31.75	MTBP4073TA
94.0≤X<114.0	φ19.05	φ34.92	MTBP4073TA
114.0≤X<140.0	φ19.05	φ38.1	MTBP4073TA
140.0≤X<197.0	φ19.05	φ41.3	MTBP4073TA
X≥197.0	φ22.23	φ44.5	MTBP4285TA

▶ Main pipeline design for independent series

Total Capacity (kW) of Downstream IDUs	Liquid Pipe Specifications (mm)	Gas Pipe Specifications (mm)	Branch pipe selection
X<16.8	φ9.52	φ15.88	MTBP4022TA
16.8≤X<22.5	φ9.52	φ19.05	MTBP4022TA
22.5≤X<33.0	φ9.52	φ22.23	MTBP4033TA
33.0≤X<46.0	φ12.7	φ25.40	MTBP4072TA
46.0≤X<67.0	φ15.88	φ28.58	MTBP4072TA
67.0≤X<94.0	φ19.05	φ31.75	MTBP4073TA
X≥94.0	φ19.05	φ34.92	MTBP4073TA

Indoor Units
VRF indoor units

Fresh Air Processing Unit
100% fresh air supply

Ventilation
Heat recovery ventilator (HRV)

AHU Connection Kit
Connect to MLES DX AHU

Control Systems
Smart control systems

MLES Ars Series Heat Pump

Optimized design for small to large buildings

- Enhanced Vapor Injection (EVI) Compressor
- High Efficiency Double C-Shape Heat Exchanger
- ESP up to 110Pa
- Two Stage Subcooling
- Eight Stage Oil Return
- Multi Silent Technologies
- Duty Cycling
- Auto Addressing
- Backup Operation
- Multi Protection
- Anti-Corrosion
- Micro-HEX Technology
- MCC defrost with non-stop
- Auto Snow-blowing Function
- Dust-clean Function
- Precise detection of refrigerant pressure
- Black Box Technology
- BMS
- Household-based charging system
- Intelligent Interlocking for Hotels

▶ Wide Capacity Range

Starting at 8HP, capacity increases in 2HP increments up to 102HP.

8/10/12HP
(single compressor single fan)

14/16/18HP
(single compressor single fan)

20/22HP
(single compressor dual fans)

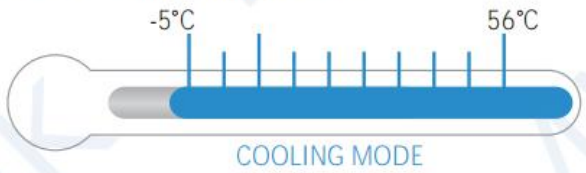
24/26/28/30/32/34HP
(dual compressors dual fans)

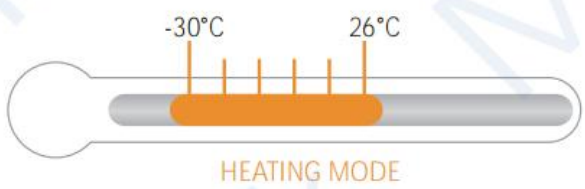
16-64HP

24-102HP

▶ Wide Operating Temperature Range

MLES Ark VRF can operate stably in a wide ambient temperature range: from -5°C to 56°C in cooling mode and from -30° C to 26°C in heating mode.





▶ Long Piping Capability

PlpIng length	Capablity (m)
Maximum actual single piping length	200 m
Maximum equivalent single piping length	240 m
Maximum piping (total)	1100 m
Maximum height difference of IDU and ODU	110 m
Maximum height difference of IDUs	30 m
Maximum allowed length pipe after the first branch pipe	90 m*

*Check relevant technical documents or consult technicians.

Modular full inverter ODUs

Model			MLES080DXT	MLES100DXT	MLES120DXT	MLES140DXT	MLES160DXT	MLES180DXT	MLES200DXT	MLES220DXT
HP			8	10	12	14	16	18	20	22
Combination type			-	-	-	-	-	-	-	-
Power supply		V/N/Hz	380-415/3/50 (60)							
*1 Cooling	Capacity	kW	25.2	28.5	33.5	40.0	45.0	50.4	56.0	61.5
	Power input	kW	5.45	6.75	8.40	10.25	12.10	13.50	15.77	17.75
	EER	/	4.62	4.22	3.99	3.90	3.72	3.73	3.55	3.46
*2 Heating	Capacity	kW	27.0	31.5	37.5	45.0	50.0	56.0	63.0	69.0
	Power input	kW	5.41	6.60	8.30	10.28	12.15	13.60	15.50	16.99
	COP	/	4.99	4.77	4.52	4.38	4.12	4.12	4.06	4.06
Connectable indoor unit	Total capacity	kW	50%-130% of outdoor unit capacity							
Compressors	Type	/	DC Inverter							
	Quantity	/	1	1	1	1	1	1	1	1
Fan motors	Type	/	DC							
	Quantity	/	1	1	1	1	1	1	1	1
Airflow rate		m³/h	12000			13980			25800	
Net dimensions (W*D*H)		mm	930×860×1690			1240×860×1690			1500×860×1690	
Packed dimensions (W*D*H)		mm	995×925×1870			1305×925×1870			1562×925×1870	
Sound pressure level		dB(A)	56	56	57	59	60	61	62	62
Pipe connections	Liquid pipe	mm	φ9.52		φ12.70	φ12.70			φ15.88	
	Gas pipe	mm	φ22.23		φ25.40	φ28.58			φ28.58	
Net weight		kg	225	225	225	290	290	290	345	350
Gross weight		kg	240	240	240	305	305	305	360	365
Refrigerant	Type	/	R410A							
	Factory charge	kg	8	8	10	12	12	12	16	16
Operating temperature range	Cooling	℃	-5~56							
	Heating	℃	-30~26							
* 3 Maximum fuse current	MFA	A	20.0	25.0	32.0	40.0	40.0	50.0	50.0	63.0
* 3 Minimum line current	MCA	A	17.4	21.7	25.8	33.0	35.0	39.1	43.5	47.5

Model			MLES200DXA	MLES220DXA	MLES240DXA	MLES260DXA	MLES280DXA	MLES300DXA	MLES320DXA	MLES340DXA
HP			20	22	24	26	28	30	32	34
Combination type			-	-	-	-	-	-	-	-
Power supply		V/N/Hz	380-415/3/50(60)							
*1 Cooling	Capacity	kW	56.0	61.5	68.5	73.5	78.5	85.0	90.0	95.2
	Power input	kW	16.00	17.87	18.60	19.27	20.95	22.85	24.65	25.75
	EER	/	3.50	3.44	3.68	3.81	3.75	3.72	3.65	3.70
*2 Heating	Capacity	kW	63.0	69.0	75.0	81.5	87.5	95.0	100.0	106.0
	Power input	kW	15.60	17.30	17.60	19.01	20.55	23.05	24.15	25.60
	COP	/	4.04	3.99	4.26	4.29	4.26	4.12	4.14	4.14
Connectable indoor unit	Total capacity	kW	50%-130% of outdoor unit capacity							
Compressors	Type	/	DC Inverter							
	Quantity	/	2	2	2	2	2	2	2	2
Fan motors	Type	/	DC							
	Quantity	/	2	2	2	2	2	2	2	2
Airflow rate		m³/h	25800			27000				
Net dimensions (W*D*H)		mm	1500×860×1690			1900×860×1690				
Packed dimensions (W*D*H)		mm	1562×925×1870			1965×925×1870				
Sound pressure level		dB(A)	62	62	62	62	63	64	64	65
Pipe connections	Liquid pipe	mm	φ15.88			φ19.05				φ19.05
	Gas pipe	mm	φ28.58			φ31.75				φ34.92
Net weight		kg	380	380	380	460	470	470	470	475
Gross weight		kg	395	395	395	475	485	485	485	490
Refrigerant	Type	/	R410A							
	Factory charge	kg	16	16	16	18	22	22	22	23
Operating temperature range	Cooling	℃	-5~56							
	Heating	℃	-30~26							
* 3 Maximum fuse current	MFA	A	50.0	63.0	63.0	80.0	80.0	80.0	80.0	90.0
* 3 Minimum line current	MCA	A	43.5	47.5	52.7	66.0	68.0	70.1	72.0	74.1

Notes:

1. The nominal cooling capacity is measured under the following conditions: indoor temperature of 27.0 °C DB/19.0 °C WB; outdoor temperature of 35.0 °C DB; equivalent refrigerant piping length 10m with zero level difference.
2. The nominal heating capacity is measured under the following conditions: indoor temperature of 20.0 °C DB; outdoor temperature of 7.0 °C DB/6.0 °C WB; equivalent refrigerant piping length 10m with zero level difference.
3. Fuse or circuit breaker is selected based on MFA. Electrical wiring is selected based on MCA.

Modular full inverter ODUs

Model			MLES340DXT	MLES360DXT	MLES380DXT	MLES400DXT	MLES420DXA	MLES440DXA	MLES460DXA	MLES480DXA
HP			34	36	38	40	42	44	46	48
Combination type			18+16	18+18	18+20 (DXT)	20+20 (DXT)	22+20	22+22	24+22	24+24
Power supply		V/N/Hz	380-415/3/50 (60)							
*1 Cooling	Capacity	kW	95.4	100.8	106.4	112.0	117.5	123.0	130.0	137.0
	Power input	kW	25.60	27.00	29.27	31.54	33.87	35.74	36.47	37.20
	EER	/	3.73	3.73	3.64	3.55	3.47	3.44	3.56	3.68
*2 Heating	Capacity	kW	106.0	112.0	119.0	126.0	132.0	138.0	144.0	150.0
	Power input	kW	25.75	27.20	29.10	31.00	33.00	34.60	34.90	35.20
	COP	/	4.12	4.12	4.09	4.06	4.00	3.99	4.13	4.26
Connectable indoor unit	Total capacity	kW	50%-130% of outdoor unit capacity							
Compressors	Type	/	DC Inverter							
	Quantity	/	2	2	2	2	4	4	4	4
Fan motors	Type	/	DC							
	Quantity	/	2	2	2	2	4	4	4	4
Airflow rate		m³/h	13980+13980		13980+25800	25800+25800				
Net dimensions (W*D*H)		mm	(1240+1240)×860×1690		(1240+1500) ×860×1690	(1500+1500)×860×1690				
Packed dimensions (W*D*H)		mm	(1305+1305)×925×1870		(1305+1562) ×925×1870	(1562+1562)×925×1870				
Sound pressure level		dB(A)	65	65	65	65	65	65	65	65
Pipe connections	Liquid pipe	mm	φ19.05							
	Gas pipe	mm	φ34.92			φ38.10				
Net weight		kg	290+290	290+290	290+345	345+345	380+380	380+380	380+380	380+380
Gross weight		kg	305+305	305+305	305+360	360+360	395+395	395+395	395+395	395+395
Refrigerant	Type	/	R410A							
	Factory charge	kg	12+12	12+12	12+16	16+16	16+16	16+16	16+16	16+16
Operating temperature range	Cooling	℃	-5~56							
	Heating	℃	-30~26							
* 3 Maximum fuse current	MFA	A	90.0	100.0	100.0	100.0	113.0	126.0	126.0	126.0
* 3 Minimum line current	MCA	A	74.1	78.2	82.6	87.0	91.0	95.0	100.2	105.4

Model			MLES500DXA	MLES520DXA	MLES540DXA	MLES560DXA	MLES580DXA	MLES600DXA	MLES620DXA	MLES640DXA
HP			50	52	54	56	58	60	62	64
Combination type			24+26	26+26	26+28	28+28	28+30	30+30	30+32	32+32
Power supply		V/N/Hz	380-415/3/50(60)							
*1 Cooling	Capacity	kW	142.0	147.0	152.0	157.0	163.5	170.0	175.0	180.0
	Power input	kW	37.87	38.54	40.22	41.90	43.80	45.70	47.50	49.30
	EER	/	3.75	3.81	3.78	3.75	3.73	3.72	3.68	3.65
*2 Heating	Capacity	kW	156.5	163.0	169.0	175.0	182.5	190.0	195.0	200.0
	Power input	kW	36.61	38.02	39.56	41.10	43.60	46.10	47.20	48.30
	COP	/	4.27	4.29	4.27	4.26	4.19	4.12	4.13	4.14
Connectable indoor unit	Total capacity	kW	50%-130% of outdoor unit capacity							
Compressors	Type	/	DC Inverter							
	Quantity	/	4	4	4	4	4	4	4	4
Fan motors	Type	/	DC							
	Quantity	/	4	4	4	4	4	4	4	4
Airflow rate		m³/h	25800+27000	2700+27000						
Net dimensions (W*D*H)		mm	(1500+1900) ×860×1690	(1900+1900)×860×1690						
Packed dimensions (W*D*H)		mm	(1562+1965) ×925×1870	(1965+1965)×925×1870						
Sound pressure level		dB(A)	65	65	65	66	66	66	66	66
Pipe connections	Liquid pipe	mm	φ22.23							
	Gas pipe	mm	φ41.30							
Net weight		kg	380+460	460+460	460+470	470+470	470+470	470+470	470+470	470+470
Gross weight		kg	395+475	475+475	475+485	485+485	485+485	485+485	485+485	485+485
Refrigerant	Type	/	R410A							
	Factory charge	kg	16+18	18+18	18+22	22+22	22+22	22+22	22+22	22+22
Operating temperature range	Cooling	℃	-5~56							
	Heating	℃	-30~26							
* 3 Maximum fuse current	MFA	A	143.0	160.0	160.0	160.0	160.0	160.0	160.0	160.0
* 3 Minimum line current	MCA	A	118.7	132.0	134.0	136.0	138.1	140.2	142.1	144.0

Notes:

1. The nominal cooling capacity is measured under the following conditions: indoor temperature of 27.0 °C DB/19.0 °C WB; outdoor temperature of 35.0 °C DB; equivalent refrigerant piping length 10m with zero level difference.
2. The nominal heating capacity is measured under the following conditions: indoor temperature of 20.0 °C DB; outdoor temperature of 7.0 °C DB/6.0 °C WB; equivalent refrigerant piping length 10m with zero level difference.
3. Fuse or circuit breaker is selected based on MFA. Electrical wiring is selected based on MCA.

Modular full inverter ODUs

Model			MLES660DXA	MLES680DXA	MLES700DXA	MLES720DXA	MLES740DXA
HP			66	68	70	72	74
Combination type			32+34	34+34	22+24+24	24+24+24	24+24+26
Power supply		V/N/Hz	380-415/3/50 (60)				
*1 Cooling	Capacity	kW	185.2	190.4	198.5	205.5	210.5
	Power input	kW	50.40	51.50	55.07	55.80	56.47
	EER	/	3.67	3.70	3.60	3.68	3.73
*2 Heating	Capacity	kW	206.0	212.0	219.0	225.0	231.5
	Power input	kW	49.75	51.20	52.50	52.80	54.21
	COP	/	4.14	4.14	4.17	4.26	4.27
Connectable indoor unit	Total capacity	kW	50%-130% of outdoor unit capacity				
Compressors	Type	/	DC Inverter				
	Quantity	/	4	4	6	6	6
Fan motors	Type	/	DC				
	Quantity	/	4	4	6	6	6
Airflow rate		m^3/h	2700+27000		25800+25800+25800		25800+25800+27000
Net dimensions (W*D*H)		mm	(1900+1900)×860×1690		(1500+1500+1500)×860×1690		(1500+1500+1900)×860×1690
Packed dimensions (W*D*H)		mm	(1965+1965)×925×1870		(1562+1562+1562)×925×1870		(1562+1562+1965)×925×1870
Sound pressure level		dB(A)	66	66	66	66	66
Pipe connections	Liquid pipe	mm	φ22.23				
	Gas pipe	mm	φ41.30		φ44.50		
Net weight		kg	470+475	475+475	380+380+380	380+380+380	380+380+460
Gross weight		kg	485+490	490+490	395+395+395	395+395+395	395+395+475
Refrigerant	Type	/	R410A				
	Factory charge	kg	22+23	23+23	16+16+16	16+16+16	16+16+18
Operating temperature range	Cooling	℃	-5～56				
	Heating	℃	-30～26				
* 3 Maximum fuse current	MFA	A	170.0	180.0	189.0	189.0	206.0
* 3 Minimum line current	MCA	A	146.1	148.2	152.9	158.1	171.4

Model			MLES760DXA	MLES780DXA	MLES800DXA	MLES820DXA	MLES840DXA	MLES860DXA	MLES880DXA
HP			76	78	80	82	84	86	88
Combination type			24+26+26	26+26+26	26+26+28	26+26+30	26+26+32	28+28+30	28+30+30
Power supply		V/N/Hz	380-415/3/50 (60)						
*1 Cooling	Capacity	kW	215.5	220.5	225.5	232.0	237.0	242.0	248.5
	Power input	kW	57.14	57.81	59.49	61.39	63.19	64.75	66.65
	EER	/	3.77	3.81	3.79	3.78	3.75	3.74	3.73
*2 Heating	Capacity	kW	238.0	244.5	250.5	258.0	263.0	270.0	277.5
	Power input	kW	55.62	57.03	58.57	61.07	62.17	64.15	66.65
	COP	/	4.28	4.29	4.28	4.22	4.23	4.21	4.16
Connectable indoor unit	Total capacity	kW	50%-130% of outdoor unit capacity						
Compressors	Type	/	DC Inverter						
	Quantity	/	6	6	6	6	6	6	6
Fan motors	Type	/	DC						
	Quantity	/	6	6	6	6	6	6	6
Airflow rate		m^3/h	25800+27000+27000	27000+27000+27000					
Net dimensions (W*D*H)		mm	(1500+1900+1900)×860×1690	(1900+1900+1900)×860×1690					
Packed dimensions (W*D*H)		mm	(1562+1965+1965)×925×1870	(1965+1965+1965)×925×1870					
Sound pressure level		dB(A)	66	66	66	66	66	66	66
Pipe connections	Liquid pipe	mm	φ22.23						
	Gas pipe	mm	φ44.50						
Net weight		kg	380+460+460	460+460+460	460+460+470	460+460+470	460+460+470	470+470+470	470+470+470
Gross weight		kg	395+475+475	475+475+475	475+475+485	475+475+485	475+475+485	485+485+485	485+485+485
Refrigerant	Type	/	R410A						
	Factory charge	kg	16+18+18	18+18+18	18+18+22	18+18+22	18+18+22	22+22+22	22+22+22
Operating temperature range	Cooling	℃	-5～56						
	Heating	℃	-30～26						
* 3 Maximum fuse current	MFA	A	223.0	240.0	240.0	240.0	240.0	240.0	240.0
* 3 Minimum line current	MCA	A	184.7	198.0	200.0	202.1	204.0	206.1	208.2

Notes:

1. The nominal cooling capacity is measured under the following conditions: indoor temperature of 27.0 °C DB/19.0 °C WB; outdoor temperature of 35.0 °C DB; equivalent refrigerant piping length 10m with zero level difference.
2. The nominal heating capacity is measured under the following conditions: indoor temperature of 20.0 °C DB; outdoor temperature of 7.0 °C DB/6.0 °C WB; equivalent refrigerant piping length 10m with zero level difference.
3. Fuse or circuit breaker is selected based on MFA. Electrical wiring is selected based on MCA.

Modular full inverter ODUs

Model			MLES900DXA	MLES920DXA	MLES940DXA	MLES960DXA	MLES980DXA	MLES1000DXA	MLES1020DXA
HP			90	92	94	96	98	100	102
Combination type			30+30+30	30+30+32	30+32+32	32+32+32	32+32+34	32+34+34	34+34+34
Power supply		V/N/Hz	380-415/3/50 (60)						
*1 Cooling	Capacity	kW	255.0	260.0	265.0	270.0	275.2	280.4	285.6
	Power input	kW	68.55	70.35	72.15	73.95	75.05	76.15	77.25
	EER	/	3.72	3.70	3.67	3.65	3.67	3.68	3.70
*2 Heating	Capacity	kW	285.0	290.0	295.0	300.0	306.0	312.0	318.0
	Power input	kW	69.15	70.25	71.35	72.45	73.90	75.35	76.80
	COP	/	4.12	4.13	4.13	4.14	4.14	4.14	4.14
Connectable indoor unit	Total capacity	kW	50%-130% of outdoor unit capacity						
Compressors	Type	/	DC Inverter						
	Quantity	/	6	6	6	6	6	6	6
Fan motors	Type	/	DC						
	Quantity	/	6	6	6	6	6	6	6
Airflow rate		m^3/h	27000+27000+27000						
Net dimensions (W*D*H)		mm	(1900+1900+1900)×860×1690						
Packed dimensions (W*D*H)		mm	(1965+1965+1965)×925×1870						
Sound pressure level		dB(A)	66	66	66	66	66	66	66
Pipe connections	Liquid pipe	mm	φ22.23						
	Gas pipe	mm	φ44.50						
Net weight		kg	470+470+470	470+470+470	470+470+470	470+470+470	470+470+475	470+475+475	475+475+475
Gross weight		kg	485+485+485	485+485+485	485+485+485	485+485+485	485+485+490	485+490+490	490+490+490
Refrigerant	Type	/							
	Factory charge	kg	22+22+22	22+22+22	22+22+22	22+22+22	22+22+23	22+23+23	23+23+23
Operating temperature range	Cooling	℃	-5～56						
	Heating	℃	-30～26						
* 3 Maximum fuse current	MFA	A	240.0	240.0	240.0	240.0	250.0	260.0	270.0
* 3 Minimum line current	MCA	A	210.3	212.2	214.1	216.0	218.1	220.2	222.3

Notes:

1. The nominal cooling capacity is measured under the following conditions: indoor temperature of 27.0 °C DB/19.0 °C WB; outdoor temperature of 35.0 °C DB; equivalent refrigerant piping length 10m with zero level difference.
2. The nominal heating capacity is measured under the following conditions: indoor temperature of 20.0 °C DB; outdoor temperature of 7.0 °C DB/6.0 °C WB; equivalent refrigerant piping length 10m with zero level difference.
3. Fuse or circuit breaker is selected based on MFA. Electrical wiring is selected based on MCA.

Independent Full Inverter ODUs

Model			MLES080DST	MLES100DST	MLES120DST	MLES140DST	MLES160DST	MLES180DST	MLES200DST	MLES220DST
HP			8	10	12	14	16	18	20	22
Combination type			-	-	-	-	-	-	-	-
Power supply		V/N/Hz	380-415/3/50 (60)							
*1 Cooling	Capacity	kW	25.2	28.5	33.5	40.0	45.0	50.4	56	61.5
	Power input	kW	5.45	6.75	8.40	10.25	12.10	13.50	15.77	17.75
	EER	/	4.62	4.22	3.99	3.90	3.72	3.73	3.55	3.46
*2 Heating	Capacity	kW	27.0	31.5	37.5	45.0	50.0	56.0	63.0	69.0
	Power input	kW	5.41	6.60	8.30	10.28	12.15	13.60	15.50	16.99
	COP	/	4.99	4.77	4.52	4.38	4.12	4.12	4.06	4.06
Connectable indoor unit	Total capacity	kW	50%-130% of outdoor unit capacity							
Compressors	Type	/	DC Inverter							
	Quantity	/	1	1	1	1	1	1	1	1
Fan motors	Type	/	DC							
	Quantity	/	1	1	1	1	1	1	1	1
Airflow rate		m³/h	12000			13980			25800	
Net dimensions (W*D*H)		mm	930×860×1690			1240×860×1690			1500×860×1690	
Packed dimensions (W*D*H)		mm	995×925×1870			1305×925×1870			1562×925×1870	
Sound pressure level		dB(A)	56	56	57	59	60	61	62	62
Pipe connections	Liquid pipe	mm	φ9.52		φ12.70	φ12.70			φ15.88	
	Gas pipe	mm	φ22.23		φ25.40	φ28.58			φ28.58	
Net weight		kg	225	225	225	290	290	290	345	350
Gross weight		kg	240	240	240	305	305	305	360	365
Refrigerant	Type	/	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
	Factory charge	kg	8	8	10	12	12	12	16	16
Operating temperature range	Cooling	℃	-5～56							
	Heating	℃	-30～26							
* 3 Maximum fuse current	MFA	A	20.0	25.0	32.0	40.0	40.0	50.0	50.0	63.0
* 3 Minimum line current	MCA	A	17.4	21.7	25.8	33.0	35.0	39.1	43.5	47.5

Model			MLES220DSA	MLES240DSA	MLES260DSA	MLES280DSA	MLES300DSA	MLES320DSA	MLES340DSA
HP			22	24	26	28	30	32	34
Combination type			-	-	-	-	-	-	-
Power supply		V/N/Hz	380-415/3/50 (60)						
*1 Cooling	Capacity	kW	61.5	68.5	73.5	78.5	85.0	90.0	95.2
	Power input	kW	17.87	18.60	19.27	20.95	22.85	24.65	25.75
	EER	/	3.44	3.68	3.81	3.75	3.72	3.65	3.70
*2 Heating	Capacity	kW	69.0	75.0	81.5	87.5	95.0	100.0	106.0
	Power input	kW	17.30	17.60	19.01	20.55	23.05	24.15	25.60
	COP	/	3.99	4.26	4.29	4.26	4.12	4.14	4.14
Connectable indoor unit	Total capacity	kW	50%-130% of outdoor unit capacity						
Compressors	Type	/	DC Inverter						
	Quantity	/	2	2	2	2	2	2	2
Fan motors	Type	/	DC						
	Quantity	/	2	2	2	2	2	2	2
Airflow rate		m³/h	25800		27000				
Net dimensions (W*D*H)		mm	1500×860×1690		1900×860×1690				
Packed dimensions (W*D*H)		mm	1562×925×1870		1965×925×1870				
Sound pressure level		dB(A)	62	62	62	63	64	64	65
Pipe connections	Liquid pipe	mm	φ15.88		φ19.05				φ19.05
	Gas pipe	mm	φ28.58		φ31.75				φ34.92
Net weight		kg	375	375	450	460	460	460	465
Gross weight		kg	390	390	465	475	475	475	480
Refrigerant	Type	/	R410A	R410A	R410A	R410A	R410A	R410A	R410A
	Factory charge	kg	14	14	16	20	20	20	21
Operating temperature range	Cooling	℃	-5～56						
	Heating	℃	-30～26						
* 3 Maximum fuse current	MFA	A	63.0	63.0	80.0	80.0	80.0	80.0	80.0
* 3 Minimum line current	MCA	A	47.5	52.7	66.0	68.0	70.1	72.0	74.0

Notes:

1. The nominal cooling capacity is measured under the following conditions: indoor temperature of 27.0 °C DB/19.0 °C WB; outdoor temperature of 35.0 °C DB; equivalent refrigerant piping length 10m with zero level difference.
2. The nominal heating capacity is measured under the following conditions: indoor temperature of 20.0 °C DB; outdoor temperature of 7.0 °C DB/6.0 °C WB; equivalent refrigerant piping length 10m with zero level difference.
3. Fuse or circuit breaker is selected based on MFA. Electrical wiring is selected based on MCA.

Indoor Units
VRF indoor units

Fresh Air Processing Unit
100% fresh air supply

Ventilation
Heat recovery ventilator (HRV)

AHU Connection Kit
Connect to ourDX AHU

Control Systems
Smart control systems

MLES Extra Series Heat Pump

Optimized design for middle-sized buildings

- Side-discharge and Top-discharge Options
- Twin rotary DC inverter compressor
- ESP up to 110Pa (Top-discharge units only)
- Two Stage Subcooling
- Six Stage Oil Return
- Multi Silent Technologies
- Auto Addressing
- Multi Protection
- Anti-Corrosion
- Micro-HEX Technology
- Dust-clean Function
- Precise detection of refrigerant pressure
- Black Box Technology
- BMS
- Household-based charging system
- Intelligent Interlocking for Hotels(Top-discharge units only)

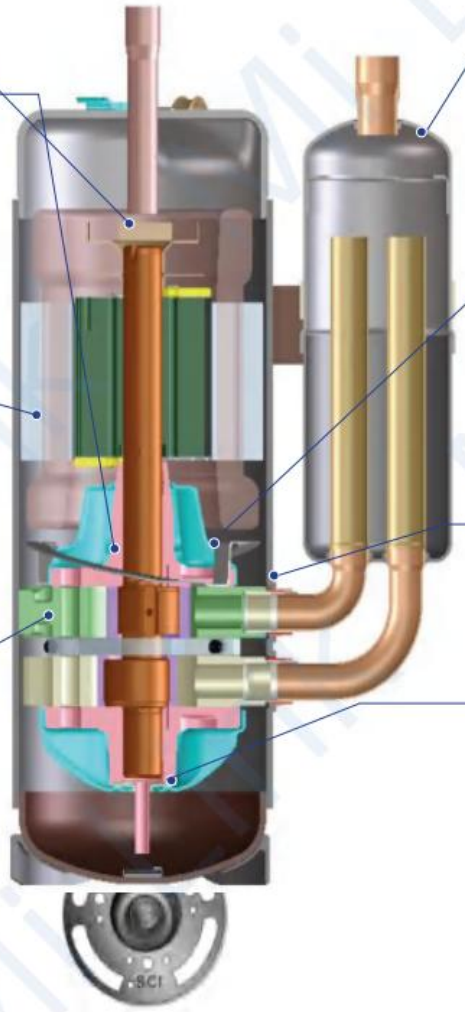
▶ DC inverter compressor

All series units adopt Mitsubishi twin rotary compressor with many Mitsubishi patented technologies.

❶ High efficiency oil separation structure
The oil discharge rate can be doubled.

❷ Permanent magnet DC high efficiency motor
Higher efficiency, better reliability and lower noise with rare earth material.

❸ Divided middle partition
Mitsubishi motor original technology, crankshaft eccentricity can be expanded to the limit, leading to smaller volume and higher efficiency.



❹ High efficiency gas-liquid separator
Preventing the system to return liquid caused by liquid hammer.

❺ Cylinder low noise design
Cylinder vent resonator design, effectively reduce the noise caused by high pressure gas discharge.

❻ Low deformation cylinder design
Improve the durability of blade friction.

❼ High efficiency movement oil supply
The unit operation is more stable, the lifespan of the compressor is longer.

▶ Wide Capacity Range

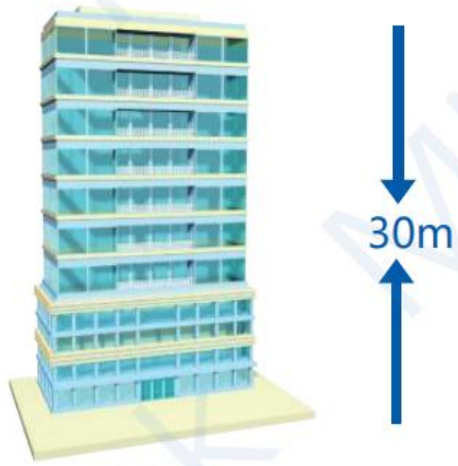
MLES Extra has two options, side-discharge and top-discharge. For side-discharge type, it has three models , 25.2/28.5/33.5kW. For top-discharge type, it has five models, 25.2/28.5/33.5/40.0/45.0kW.

Side discharge type	Top discharge type	
25.2/28.5/33.5kW	25.2/28.5/33.5kW	40.0/45.0kW
		

▶ Long Piping Capability

Maximum piping (total)	1100m
Maximum equivalenFsingle piping length	240m
Maximum height difference of IDU and ODU	110m
Maximum height difference of IDUs	30m

* Check relevant technical document or consul technicians.



Side Discharge VRF

Model			MLES252CSREA	MLES285CSREA	MLES335CSREA
HP			8	10	12
Combination type			-	-	-
Power supply		V/N/Hz	380-415/3/50 (60)		
*1 Cooling	Capacity	kW	25.2	28.5	33.5
	Power input	kW	5.99	7.65	8.25
	EER	/	4.21	3.73	4.06
*2 Heating	Capacity	kW	27	31.5	37.5
	Power input	kW	5.85	7.45	7.95
	COP	/	4.62	4.23	4.72
Connectable indoor unit	Total capacity	kW	50%-130% of outdoor unit capacity		
Compressors	Type	/	Twin rotary		
	Quantity	/	1	1	1
Fan motors	Type	/	DC		
	Quantity	/	2	2	2
Airflow rate		m^3/h	11300		
Net dimensions (W*D*H)		mm	1100×464×1550		
Packed dimensions (W*D*H)		mm	1164×571×1580		
Sound pressure level		dB(A)	58	59	60
Pipe connections	Liquid pipe	mm	φ12.70		φ12.70
	Gas pipe	mm	φ22.2		φ25.40
Net weight		kg	168	168	168
Gross weight		kg	175	175	175
Refrigerant	Type	/	R410A	R410A	R410A
	Factory charge	kg	7	7	8
Operating temperature range	Cooling	℃	-5～54		
	Heating	℃	-23～26		
* 3 Maximum fuse current	MFA	A	32.0	32.0	32.0
* 3 Minimum line current	MCA	A	25.2	25.8	26.5

Note:
1. The nominal cooling capacity is measured under the following conditions: indoor temperature of 27.0°C DB/ 19.0°C WB; outdoor temperature of 35°C DB.
2. The nominal heating capacity is measured under the following conditions: indoor temperature of 20.0°C DB; outdoor temperature of 7°C DB./ 6.0°C WB.
3. Fuse or circuit breaker is selected based on MFA. Electrical wiring is selected based on MCA.

Top Discharge VRF

Model			MLES252CSRYA	MLES285CSRYA	MLES335CSRYA	MLES400CSRYA	MLES450CSRYA
HP			8	10	12	14	16
Combination type			-	-	-	-	-
Power supply		V/N/Hz	380-415/3/50 (60)				
*1 Cooling	Capacity	kW	25.2	28.5	33.5	40.0	45.0
	Power input	kW	5.55	6.85	8.70	10.40	12.30
	EER	/	4.54	4.16	3.85	3.85	3.66
*2 Heating	Capacity	kW	27.0	31.5	37.5	45.0	50.0
	Power input	kW	5.60	6.70	8.40	10.35	12.20
	COP	/	4.82	4.70	4.46	4.35	4.10
Connectable indoor unit	Total capacity	kW	50%-130% of outdoor unit capacity				
Compressors	Type	/	Twin rotary				
	Quantity	/	1	1	1	1	1
Fan motors	Type	/	DC				
	Quantity	/	1	1	1	1	1
Airflow rate		m^3/h	12000			13980	
Net dimensions (W*D*H)		mm	930×860×1690			1240×860×1690	
Packed dimensions (W*D*H)		mm	995×925×1870			1305×925×1870	
Sound pressure level		dB(A)	57	57	57	60	61
Pipe connections	Liquid pipe	mm	φ12.70				
	Gas pipe	mm	φ25.40			φ28.58	φ28.58
Net weight		kg	204	204	204	269	269
Gross weight		kg	212	212	212	277	277
Refrigerant	Type	/	R410A	R410A	R410A	R410A	R410A
	Factory charge	kg	8	8	8	12	12
Operating temperature range	Cooling	℃	-5～54				
	Heating	℃	-23～26				
* 3 Maximum fuse current	MFA	A	32	32	32	40	40
* 3 Minimum line current	MCA	A	27.5	28.1	28.66	33	35

Note:
1. The nominal cooling capacity is measured under the following conditions: indoor temperature of 27.0°C DB/ 19.0°C WB; outdoor temperature of 35°C DB.
2. The nominal heating capacity is measured under the following conditions: indoor temperature of 20.0°C DB; outdoor temperature of 7°C DB./ 6.0°C WB.
3. Fuse or circuit breaker is selected based on MFA. Electrical wiring is selected based on MCA.

Indoor Units
VRF indoor units

Ventilation
Heat recovery ventilator (HRV)

Control Systems
Smart control systems

AHU Connection Kit
Connect to MLES DX
AHU

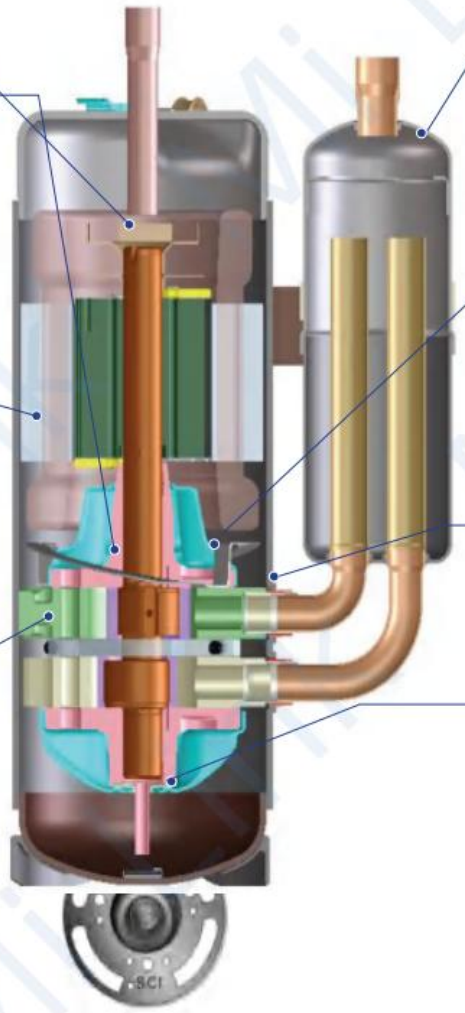
VRF Mini Series Heat Pump

Optimized design for small buildings

- Capacity Up to 22.4kw
- Connectable Indoor Units Quantity up to 11
- Micro-HEX technology
- Oil return without shutdown
- Intelligent defrosting technology
- Advanced silence technology
- Compact, easy installation

▶ DC inverter compressor

All series units adopt Mitsubishi twin rotary compressor with many Mitsubishi patented technologies.



❶ High efficiency oil separation structure
The oil discharge rate can be doubled.

❷ Permanent magnet DC high efficiency motor
Higher efficiency, better reliability and lower noise with rare earth material.

❸ Divided middle partition
Mitsubishi motor original technology, crankshaft eccentricity can be expanded to the limit, leading to smaller volume and higher efficiency.

❹ High efficiency gas-liquid separator
Preventing the system to return liquid caused by liquid hammer.

❺ Cylinder low noise design
Cylinder vent resonator design, effectively reduce the noise caused by high pressure gas discharge.

❻ Low deformation cylinder design
Improve the durability of blade friction.

❼ High efficiency movement oil supply
The unit operation is more stable, the lifespan of the compressor is longer.

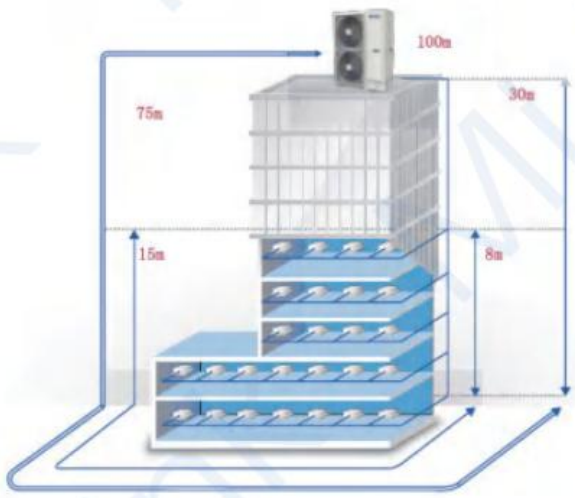
▶ Wide Capacity Range

Mini series		
8kW	10-16kW	18-22.4kW
		

▶ Long Piping Capability

Maximum actual length of single pipe	50m
Maximum equivalent length of single pipe	75m
Maximum total equivalent pipe length	100m
Maximum drop of indoor/ outdoor unit	30m
Maximum drop of indoor unit	8m
Maximum permitted length after first branch	15m*

* Pls consult the detailed technical documentation or other matters with the relative technicists.

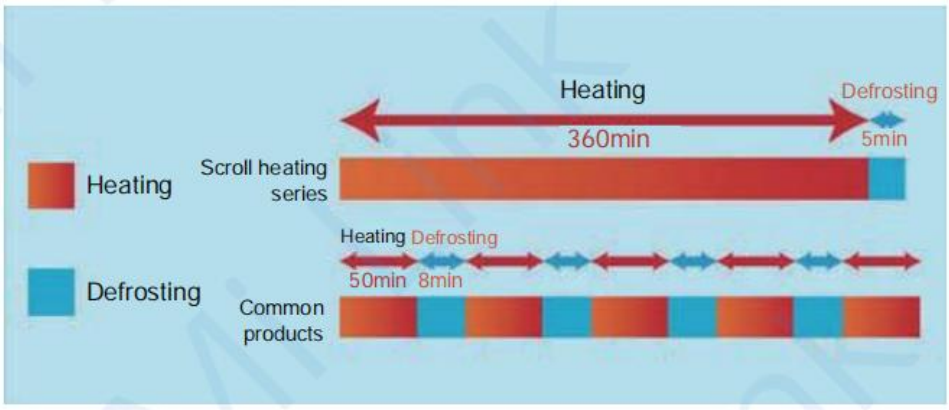


▶ Compact design

Compact design with three-side heat exchanger,can be easily installed in a small space such as a bay window.

▶ Intelligent Defrosting

The patented defrosting technology of MLES can increase the refrigerant circulation flow during defrosting, which will shorten the defrosting time and cut down the power consumption.



▶ Oil Return On Heating Operation Without Shutdown

MLES adopt on-demand oil return and high/low frequency switchover oil return to prevent wild fluctuation of indoor temperature, and provide user with more comfortable experience.

Mini VRF Specification

Model			MLES080CSREC	MLES100CSREC	MLES112CSREC	MLES125CSREC	MLES140CSREC
Power supply		V/N/Hz	220-240/1/50(60)				
*1 Cooling	Capacity	kW	8.0	10.0	11.2	12.5	14.0
	Power input	kW	2.19	2.55	2.92	3.45	3.76
	EER	/	3.65	3.92	3.84	3.62	3.72
*2 Heating	Capacity	kW	9.0	11.5	12.5	13.5	16.0
	Power input	kW	2.15	2.60	3.01	3.46	3.87
	COP	/	4.19	4.42	4.15	3.90	4.13
Connectable indoor unit	Total capacity	kW	50%-130% of outdoor unit capacity				
Compressors	Type	/	Twin rotary				
	Quantity	/	1	1	1	1	1
Fan motors	Type	/	DC				
	Quantity	/	1	1	1	1	1
Airflow rate		m³/h	3300	4800	5400	5400	6000
Net dimensions (W*D*H)		mm	865×310×700	980×390×840			
Packed dimensions (W*D*H)		mm	1010×425×735	1026×472×863			
Sound pressure level		dB(A)	53	54	55	55	56
Pipe connections	Liquid pipe	mm	φ9.52				
	Gas pipe	mm	φ15.88				
Net weight		kg	58	74	78	78	84
Gross weight		kg	68	85	89	89	95
Refrigerant	Type	/	R410A	R410A	R410A	R410A	R410A
Operating temperature range	Cooling	℃	-5～54				
	Heating	℃	-25～27				
* 3 Maximum fuse current	MFA	A	20	20	40	40	40
* 3 Minimum line current	MCA	A	16	19	32	32	32

Model			MLES160CSREC	MLES180CSREA	MLES200CSREA	MLES224CSREA
Power supply		V/N/Hz	220-240/1/50(60)	380-415/3/50(60)		
*1 Cooling	Capacity	kW	15.5	18.0	20.0	22.4
	Power input	kW	4.80	6.05	6.18	6.66
	EER	/	3.23	2.98	3.24	3.36
*2 Heating	Capacity	kW	17.0	20.0	22.0	25.0
	Power input	kW	4.65	5.75	5.81	6.36
	COP	/	3.66	3.48	3.79	3.93
Connectable indoor unit	Total capacity	kW	50%-130% of outdoor unit capacity			
Compressors	Type	/	Twin rotary			
	Quantity	/	1	1	1	1
Fan motors	Type	/				
	Quantity	/	1	2	2	2
Airflow rate		m³/h	6000	7200	7200	7200
Net dimensions (W*D*H)		mm	980×390×840	980×390×1260		
Packed dimensions (W*D*H)		mm	1026×472×863	1026×472×1287		
Sound pressure level		dB(A)	56	59	59	58
Pipe connections	Liquid pipe	mm	φ9.52			
	Gas pipe	mm	φ15.88	φ19.05		
Net weight		kg	84	125	125	125
Gross weight		kg	95	136	136	136
Refrigerant	Type	/	R410A	R410A	R410A	R410A
Operating temperature range	Cooling	℃	-5～54			
	Heating	℃	-25～27			
* 3 Maximum fuse current	MFA	A	40	20	20	20
* 3 Minimum line current	MCA	A	32	17	17	17

Notes:

1. The nominal cooling capacity is measured under the following conditions: indoor temperature of 27.0 ºC DB/19.0 ºC WB; outdoor temperature of 35.0 ºC DB; equivalent refrigerant piping length 10m with zero level difference.
2. The nominal heating capacity is measured under the following conditions: indoor temperature of 20.0 ºC DB; outdoor temperature of 7.0 ºC DB/6.0 ºC WB; equivalent refrigerant piping length 10m with zero level difference.
3. Fuse or circuit breaker is selected based on MFA. Electrical wiring is selected based on MCA.

Indoor Units
VRF indoor units

Fresh Air Processing Unit
100% fresh air supply

Ventilation
Heat recovery ventilator (HRV)

AHU Connection Kit
Connect to MLES DX AHU

Control Systems
Smart control systems

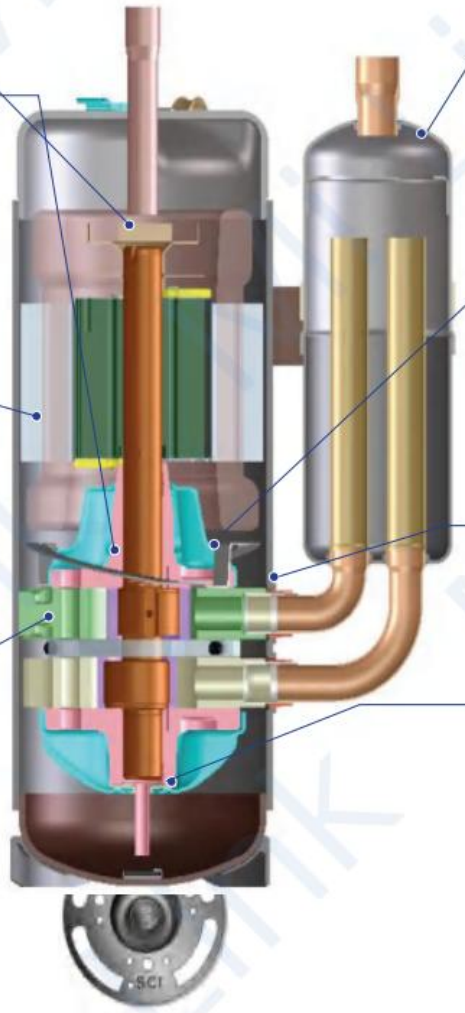
MLES Series Cooling Only

Optimized design for small to large buildings

- High Efficiency Double C-Shape Heat Exchanger
- ESP up to 110Pa
- Two Stage Subcooling
- Six Stage Oil Return
- Multi Silent Technologies
- Duty Cycling
- Auto Addressing
- Backup Operation
- Multi Protection
- Anti-Corrosion
- Micro-HEX Technology
- Dust-clean Function
- Precise detection of refrigerant pressure
- Black Box Technology
- Combine freely

▶ DC inverter compressor

All series units adopt Mitsubishi twin rotary compressor with many Mitsubishi patented technologies.



1 High efficiency oil separation structure
The oil discharge rate can be doubled.

2 Permanent magnet DC high efficiency motor
Higher efficiency, better reliability and lower noise with rare earth material.

3 Divided middle partition
Mitsubishi motor original technology, crankshaft eccentricity can be expanded to the limit, leading to smaller volume and higher efficiency.

4 High efficiency gas-liquid separator
Preventing the system to return liquid caused by liquid hammer.

5 Cylinder low noise design
Cylinder vent resonator design, effectively reduce the noise caused by high pressure gas discharge.

6 Low deformation cylinder design
Improve the durability of blade friction.

7 High efficiency movement oil supply
The unit operation is more stable, the lifespan of the compressor is longer.

▶ Wide Capacity Range

For single unit, the capacity is up to 16HP. For combined units, maximum three 16HP units can be combined with capacity up to 48HP.

8/10/12/14HP

16HP

16-32HP

24-48HP

▶ Combine freely

MLES cooling only series units can be combined 3 modules freely without any limitation.

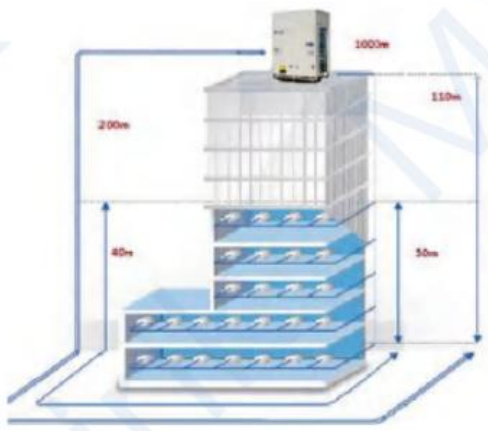
▶ Wide Operating Temperature Range

MLES cooling only VRF units can operate stably in a wide ambient temperature range: from -5°C to 55°C.

▶ Long Piping Capability

Max. height difference between IDU and ODU	ODUup : 110m
	ODU down : 90m
Max. height difference between IDU and IDU	30m
Max. allowed length pipe after the first branch	40m(90m)
Max. equivalent single piping length	200m
Max. total piping length	1000m

Note: Check relevant technical documents or consult technicians.



Cooling only VRF

Model			MLES080 CXC	MLES100 CXC	MLES120 CXC	MLES140 CXC	MLES160 CXC	MLES180 CXC	MLES200 CXC	MLES220 CXC	MLES 240CXC	MLES 260CXC
*1 Combination			-	-	-	-	-	10+8	12+8	12+10	12+12	14+12
Power supply		/	380-415 / 3 / 50(60)									
*2 Cooling	Capacity	kW	25.2	28.0	33.5	40.0	45.0	53.2	56.0	61.5	67.0	73.0
	Power input	kW	5.6	6.9	8.8	10.6	12.5	12.5	13.8	15.7	17.6	19.4
	EER	/	4.5	4.1	3.8	3.8	3.6	4.3	4.1	3.9	3.8	3.8
Connectable indoor unit	Total capacity	kW	50%-130% of outdoor unit capacity									
	Max. quantity	/	14	16	19	19	22	31	33	34	34	36
Compressors	Type	/	DC inverter									
	Quantity	/	1	1	1	1	1	2	2	2	2	2
Fan motors	Type	/	DC									
	Quantity	/	1	1	1	1	1	2	2	2	2	2
	Max.ESP	Pa	110									
Airflow rate		m^3/h	12000			13980		24000				25980
Net dimensions (W*D*H)		mm	930×860×1690			1240×860×1690		(930×860×1690)×2				(930×860×1690)+ (1240×860×1690)
Packed dimensions (W*D*H)		mm	990×920×1750			1300×920×1750		(990×920×1750)×2				(990×920×1750)+ (1300×920×1750)
Sound pressure level		dB (A)	57			60	61	59				62
Pipe connections	Liquid pipe	mm	φ12.7						φ15.88			φ19.05
	Gas pipe	mm	φ25.4			φ28.6						φ31.75
Net weight		kg	220	220	220	290	290	440	440	440	440	510
Gross weight		kg	235	235	235	305	305	455	455	455	455	525
Refrigerant	Type	/	R410A									
	Factory charge	kg	8	8	9	12	12	16	20	17	18	21
Operating temperature range	Cooling	°C	-5~55°C									
*3 Maximum fuse current	MFA	A	20.0	25.0	32.0	40.0	40.0	45.0	52.0	57.0	64.0	72.0
*3 Minimum line current	MCA	A	17.4	21.7	25.8	33.0	35.0	39.1	43.2	47.5	51.6	58.8

Notes:
1. The combination mode is recommended, and you can choose the combination mode freely.Maximum 3 modules can be combined.
2. The nominal cooling capacity is measured under the following conditions: indoor temperature of 27.0 ºC DB/19.0 ºC WB; outdoor temperature of 35.0 ºC DB; equivalent refrigerant piping length 10m with zero level difference.
3. Fuse or circuit breaker is selected based on MFA. Electrical wiring is selected based on MCA.

Cooling only VRF

Model			MLES280 CXC	MLES300 CXC	MLES320 CXC	MLES340 CXC	MLES360 CXC	MLES380 CXC	MLES400 CXC	MLES420 CXC	MLES440 CXC	MLES460 CXC	MLES480 CXC
*1 Combination			14+14	14+16	16+16	12+12+10	12+12+12	14+14+10	14+14+12	14+14+14	16+14+14	16+16+14	16+16+16
Power supply		/	380-415 / 3 / 50(60)										
*2 Cooling	Capacity	kW	80.0	85.0	90.0	95.0	100.5	108.0	113.5	120.0	125.0	130.0	135.0
	Power input	kW	21.1	23.0	24.9	24.5	26.4	28.0	33.7	31.7	33.6	35.5	37.4
	EER	/	3.8	3.7	3.6	3.9	3.8	3.9	3.4	3.8	3.7	3.7	3.6
Connectable indoor unit	Total capacity	kW	50%-130% of outdoor unit capacity										
	Max. quantity	/	38	40	40	42	42	44	46	48	50	52	52
Compressors	Type	/	DC inverter										
	Quantity	/	2	2	2	3	3	3	3	3	3	3	3
Fan motors	Type	/	DC										
	Quantity	/	2	2	2	3	3	3	3	3	3	3	3
	Max. ESP	Pa	110										
Airflow rate		m³/h	27960			36000		39960		41940	41940	41940	41940
Net dimensions (W*D*H)		mm	(1240×860×1690)×2			(930×860×1690)×3		(930×860×1690)+ (1240×860×1690)×2		(1240×860×1690)×3			
Packed dimensions (W*D*H)		mm	(1300×920×1750)×2			(990×920×1750)×3		(990×920×1750)+ (1300×920×1750)×2		(1300×920×1750)×3			
*3 Sound pressure level		dB (A)	62	63	63	60	60	63	63	63	64	64	64
Pipe connections	Liquid pipe	mm	φ19.05										
	Gas pipe	mm	φ31.75			φ34.92			φ38.1				
Net weight		kg	580	580	580	660	660	780	780	870	870	870	870
Gross weight		kg	595	595	595	675	675	795	795	885	885	885	885
Refrigerant	Type	/	R410A										
	Factory charge	kg	24	24	24	26	27	32	33	36	36	36	36
Operating temperature range	Cooling	°C	-5~55°C										
*3 Maximum fuse current	MFA	A	80.0	80.0	80.0	89.0	96.0	105.0	112.0	120.0	120.0	120.0	120.0
*3 Minimum line current	MCA	A	66.0	68.0	70.0	73.0	77.4	87.7	91.8	99.0	101.0	103.0	105.0

Notes:
1. The combination mode is recommended, and you can choose the combination mode freely.Maximum 3 modules can be combined.
2. The nominal cooling capacity is measured under the following conditions: indoor temperature of 27.0 ºC DB/19.0 ºC WB; outdoor temperature of 35.0 ºC DB; equivalent refrigerant piping length 10m with zero level difference.
3. Fuse or circuit breaker is selected based on MFA. Electrical wiring is selected based on MCA.

Indoor unit

Inoor Unit Lineup

kW		1.5	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
One-way Cassette					●		●		●		●		●			
Two-way Cassette					●		●		●		●		●	●		
Round Flow Cassette					● ●		● ●		● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●
Compact Round Flow Cassette		●	●		●		●		●	●						
Slim Duct			● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●	● ●			
Medium Static Pressure Duct			●	●	●	●	●	●	●	●	●	●	●	●	●	●
High Static Pressure Duct																●
Wall Mounted					●		●	●			●					
Ceiling & Floor					●		●				●		●		●	
Full Fresh Air Handling Unit																

● DC motor
● AC motor

Inoor Unit Lineup

kW		11.2	12.5	14.0	16.0	20.0	25.0	28.0	33.5	40.0	45.0	50.0	56.0	61.5
One-way Cassette														
Two-way Cassette														
Round Flow Cassette		● ●	● ●	● ●	● ●									
Compact Round Flow Cassette														
Slim Duct														
Medium Static Pressure Duct		●	●	●	●									
High Static Pressure Duct		●	●	●		●	●		●	●	●	●	●	●
Wall Mounted														
Ceiling & Floor		●	●	●										
Full Fresh Air Handling Unit				●			●	●			●		●	

● DC motor
● AC motor

AHU KIT

Model	Setting cooling capacity (HP)	Indoor unit capacity (kW)	reference air volume (m^3/h)	Picture
MLES 056	2	5-6	800	
MLES090	4	7-10	1600	
MLES 180	6	10-20	2500	
MLES280	8	20~25	3000	
	10	25~30	3700	
MLES450	12	30~36	4500	
	14	36~40	5400	
	16	40~45	6000	
MLES900	18	45~50	6800	
	20	50~56	7600	
	22	56~61.5	8400	
	24	61.5~67	9000	
	26	67~73	9800	
	28	73~78	10600	
	30	78~84	11400	
	32	84~90	12000	

One-way Cassette

▶ COMFORT

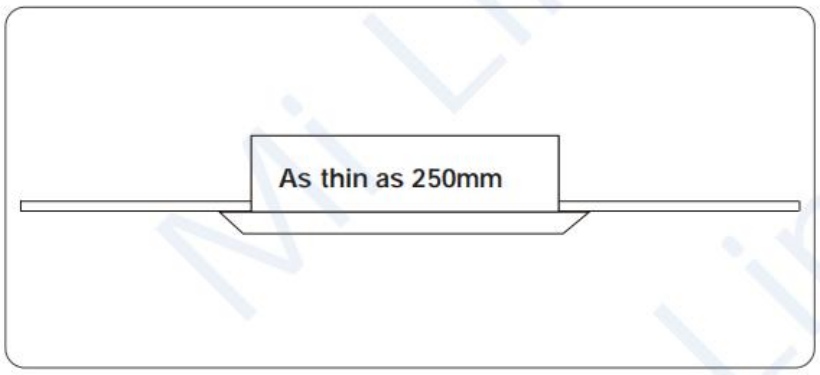
Quiet Operation

The compact turbo fan adopts axial air intaking. Small blades ensure even air supply and substantially reduce noise for a quiet and comfort environment.

▶ EASY INSTALLATION

Easy Installation

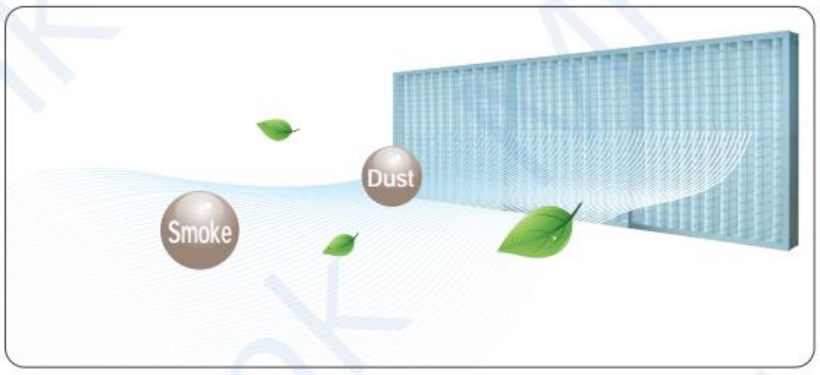
Body thickness of 250 mm installed in a concealed way to lift the height of the suspended ceiling, especially suitable for ceilings with narrow height.



▶ HEALTH

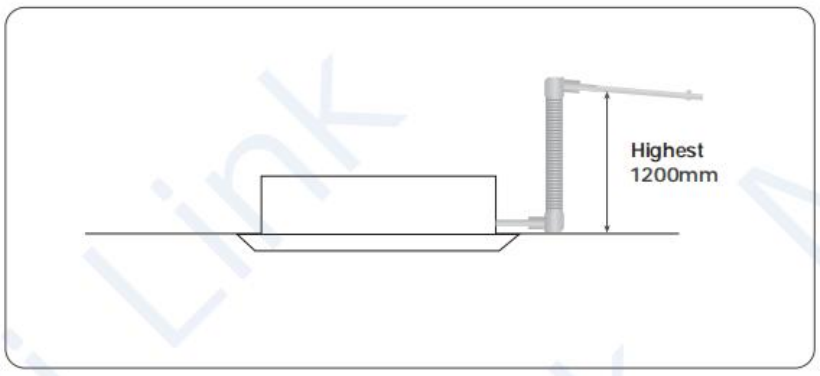
Exclusive Sterilizing Filter

The unique sterilizing filter can effectively filter smog and dust from air, to provide users with fresh air all the time.



High-lift Drain Pump

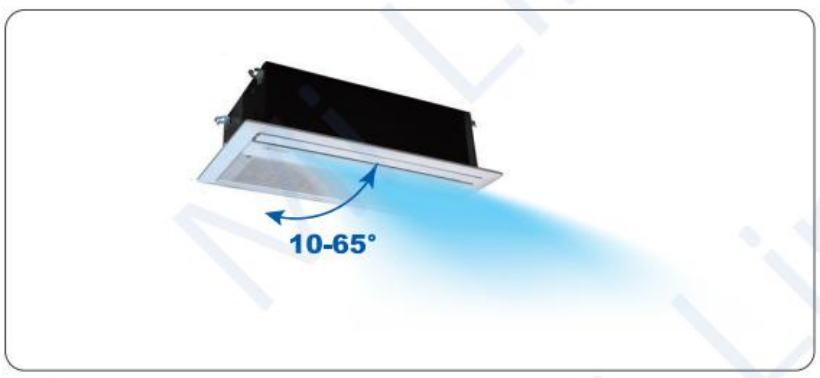
Built-in with a fully-automatic drain pump. Pumping head is up to 1200mm, flexible for drainage pipe design.



▶ AIR FLOW

Wide air supply outlet

Fan deflector may provide wide range air supply of 10-65°, creating cozy living environment indoors and comfortable feeling of wide angle.



Specifications

▶ One-way cassette

Model (MLES-XX-A)			028	036	045	056	071
Nominal cooling capacity		kW	2.8	3.6	4.5	5.6	7.1
Nominal heating capacity		kW	3.2	4.0	5.0	6.3	8.0
Power supply		V/N/Hz	220/1/50				
Motor type		-	AC motor				
Nominal input power		W	40	40	45	45	50
Dimensions (WxDxH)		mm	870×460×250			1180×495×290	
Panel dimensions (WXDxH)		mm	1070×520×33			1380×550×33	
Panel color			Milky white				
Air flow	High	m^3/h	510	600	720	910	1000
	Medium		410	480	570	830	850
	Low		310	360	450	700	750
Sound pressure level (H/M/L)		dB(A)	36/34/30	36/28/26	42/39/35	45/41/39	47/43/40
Weight		kg	25	27	27	39	39
Connecting pipe Dimensions	Liquid pipe	mm	φ6.35				φ9.52
	Gas pipe	mm	φ12.70				φ15.88
	Condensate drain pipe	mm	DN20				

Two-way Cassette

▶ COMFORT

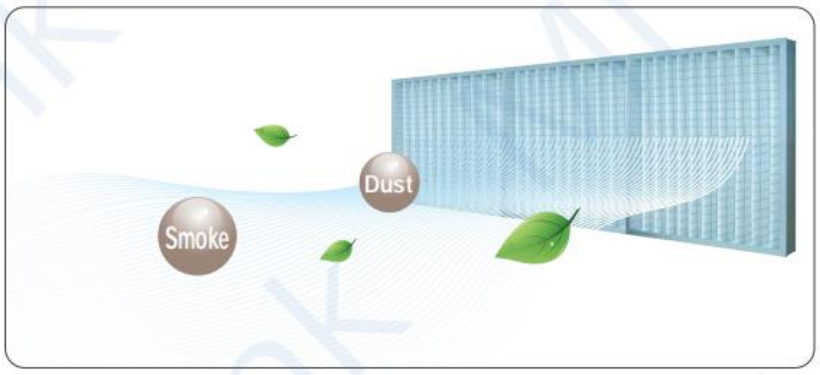
Quiet Operation

The compact turbo fan adopts axial air intaking. Small blades ensure even air supply and substantially reduce noise for a quiet and comfort environment.

▶ HEALTH

Exclusive Sterilizing Filter

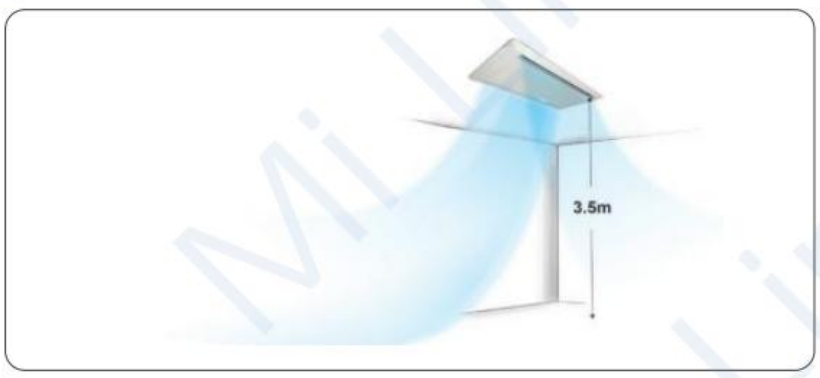
The unique sterilizing filter can effectively filter smog and dust from air, to provide users with fresh air all the time.



▶ AIR FLOW

Wide air supply outlet

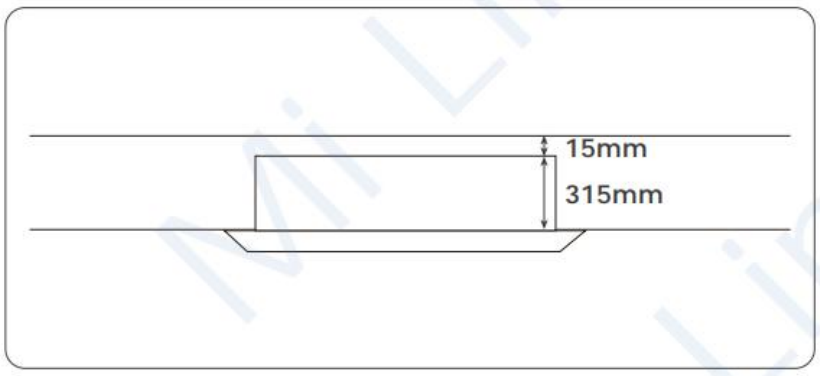
Fan deflector may provide wide range air supply of 10-65°, creating cozy living environment indoors and comfortable feeling of wide angle.



▶ EASY INSTALLATION

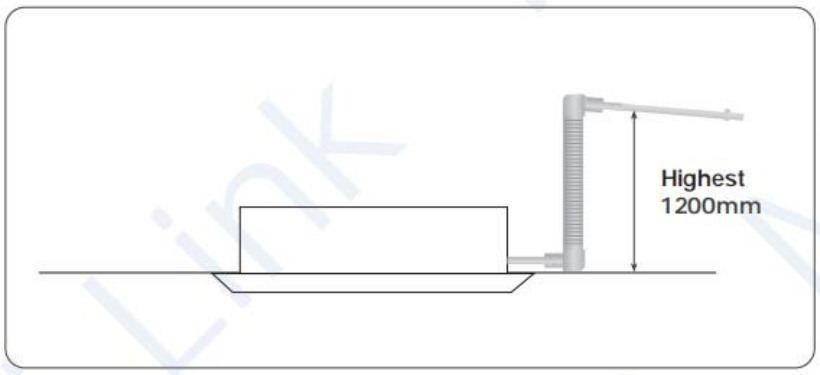
Easy Installation

Body thickness of 250 mm installed in a concealed way to lift the height of the suspended ceiling, especially suitable for ceilings with narrow height.



High-lift Drain Pump

Built-in with a fully-automatic drain pump. Pumping head is up to 1200mm, flexible for drainage pipe design.



Specifications

▶ Two-way cassette

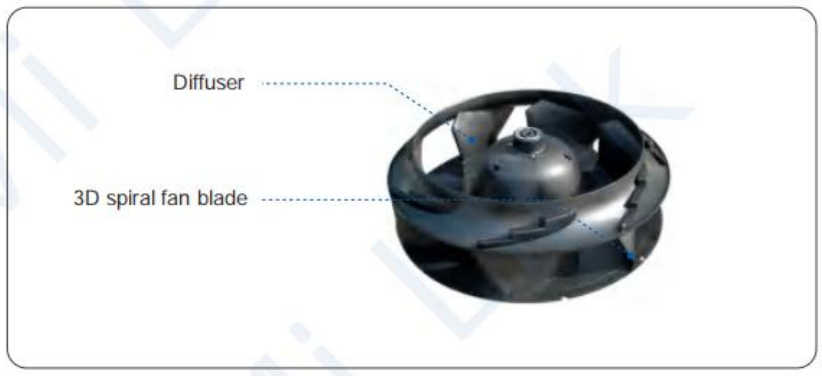
Model (MLES-XX-A)			028	036	045	056	071	080
Nominal cooling capacity		kW	2.8	3.6	4.5	5.6	7.1	8.0
Nominal heating capacity		kW	3.2	4.0	5.0	6.3	8.0	9.0
Power supply		V/N/Hz	220/1/50					
Motor type		-	AC motor					
Nominal input power		W	60	62	68	85	94	98
Dimensions (WxDxH)		mm	970×520×315				1210×520×315	
Panel dimensions (WXDxH)		mm	1176×630×33				1416×630×33	
Panel color			Milky white					
Air flow	High	m^3/h	500	616	773	900	1165	1300
	Medium		426	523	657	765	990	1120
	Low		376	462	580	657	873	980
Sound pressure level (H/M/L)		dB(A)	37/31/25	39/36/32	43/37/31	45/41/39	47/43/40	49/45/42
Weight		kg	32	32	37	37	40	40
Connecting pipe Dimensions	Liquid pipe	mm	φ6.35				φ9.52	
	Gas pipe	mm	φ12.70				φ15.88	
	Condensate drain pipe	mm	DN20					

Round Flow Cassette

▶ COMFORT

Quiet Operation

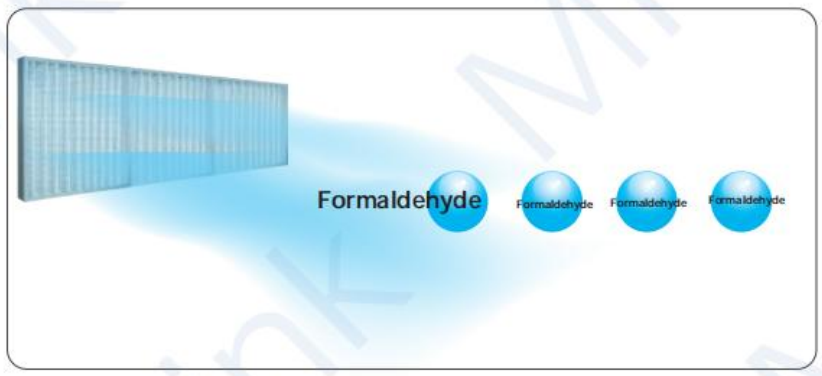
The use of aerospace technology on 3D spiral fan blades with optimized air duct design reduces internal resistance of the unit and achieves ultra-quiet operation, creating a comfortable and pleasant environment.



▶ HEALTH

Health

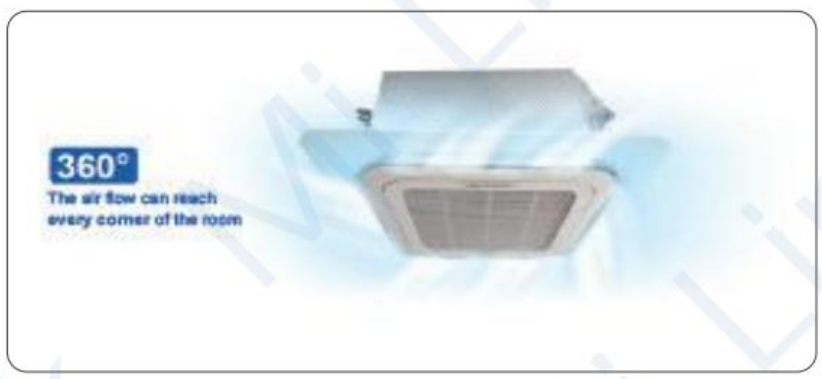
PM2.5, formaldehyde and antibacterial filters are to provide super-clean indoor environment.



▶ AIR FLOW

360° Air Flow

360° air flow design features more reasonable airflow distribution and more uniform temperature in the entire room for improved comfort.



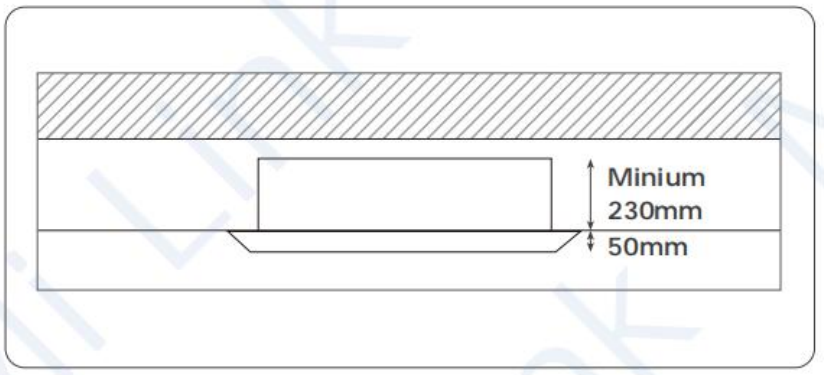
High Ceiling Installation

The air supply is not limited by the floor height. The cold air can reach the ground in a room of up to 3.5 m high to achieve optimum air conditioning performance.

▶ EASY INSTALLATION

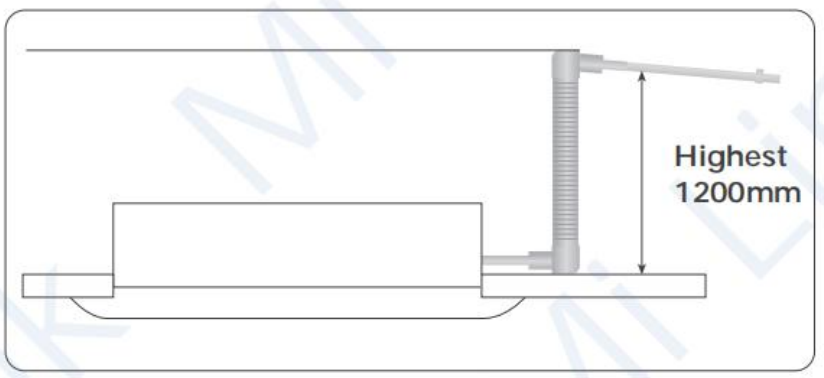
Compact Size

The height of models 28 to 80 are just 230mm whilst models 90 to 160 are 300mm, making the round flow cassette idea for standard ceilings.



High-lift Drain Pump

Built-in with a fully-automatic drain pump. Pumping head is up to 1200mm, flexible for drainage pipe design.



▶ Round flow cassette

Model (MLES-XX-AB)			028	036	045	050	056	063	071	080	090	100	112	125	140	160
Nominal cooling capacity		kW	2.8	3.6	4.5	5.0	5.6	6.3	7.1	8.0	9.0	10.0	11.2	12.5	14.0	16.0
Nominal heating capacity		kW	3.2	4.0	5.0	5.6	6.3	7.1	8.0	9.0	10.0	11.2	12.5	14.0	16.0	18.0
Power supply		V/N/Hz	220/1/50													
Motor type		-	AC motor													
Nominal input power		W	55	55	70	70	75	75	90	90	150	150	150	190	190	210
Dimensions (WxDxH)		mm	840×840×230								840×840×300					
Panel dimensions (WXDxH)		mm	950×950×50													
Panel color			Milky white													
Air flow	High	m^3/h	750	810	900	900	960	960	1020	1200	1500	1620	1700	1800	1800	2100
	Medium		660	690	720	720	780	780	900	1080	1200	1260	1360	1500	1500	1800
	Low		540	540	600	600	660	660	690	870	900	1020	1080	1200	1200	1500
Sound pressure level (H/M/L)		dB(A)	32/30/25		36/33/31				39/36/33		42/39/35			44/40/35		44/40/36
Weight		kg	22.5	22.5	24.5	24.5	24.5	24.5	24.5	24.5	29.5	29.5	29.5	29.5	32	32
Connecting pipe Dimensions	Liquid pipe	mm	φ6.35						φ9.52							
	Gas pipe	mm	φ12.70						φ15.88							
	Condensate drain pipe	mm	DN25													

▶ DC round flow cassette

Model (MLES-XX-ABB)			028	036	045	050	056	063	071	080	090	100	112	125	140	160
Nominal cooling capacity		kW	2.8	3.6	4.5	5.0	5.6	6.3	7.1	8.0	9.0	10.0	11.2	12.5	14.0	16.0
Nominal heating capacity		kW	3.2	4.0	5.0	5.6	6.3	7.1	8.0	9.0	10.0	11.2	12.5	14.0	16.0	18.0
Power supply		V/N/Hz	220/1/50													
Motor type		-	DC motor													
Nominal input power		W	36	36	45	45	45	45	73	73	67	67	88	88	88	130
Dimensions (WxDxH)		mm	840×840×230								840×840×300					
Panel dimensions (WXDxH)		mm	950×950×50													
Panel color			Milky white													
Air flow	High	m^3/h	810	810	960	960	960	960	1020	1200	1500	1500	1800	1800	1800	2100
	Medium		690	690	780	780	780	780	900	900	1200	1200	1500	1500	1500	1800
	Low		540	540	660	660	660	660	690	690	900	900	1200	1200	1200	1500
Sound pressure level (H/M/L)		dB(A)	32/30/25		36/33/31				39/36/33		42/39/35			44/40/35		44/40/36
Weight		kg	22.5	22.5	24.5	24.5	24.5	24.5	24.5	24.5	29.5	29.5	29.5	29.5	32	32
Connecting pipe Dimensions	Liquid pipe	mm	φ6.35						φ9.52							
	Gas pipe	mm	φ12.70						φ15.88							
	Condensate drain pipe	mm	DN25													

▶ Compact Round Flow Cassette

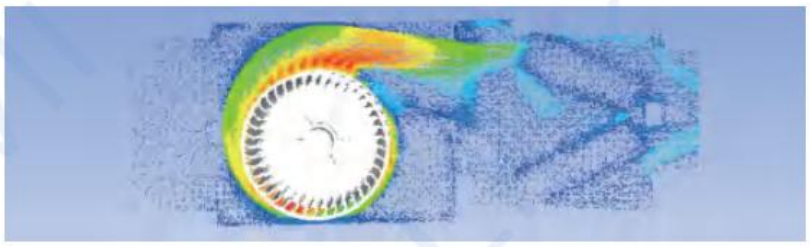
Model (MLES-XX-AC)			015	022	028	036	045	050
Nominal cooling capacity		kW	1.5	2.2	2.8	3.6	4.5	5.0
Nominal heating capacity		kW	2.2	2.5	3.2	4.0	5.0	5.6
Power supply		V/N/Hz	220/1/50					
Motor type		-	AC motor					
Nominal input power		W	50	50	50	75	75	75
Dimensions (WxDxH)		mm	590×590×260					
Panel dimensions (WXDxH)		mm	680×680×30					
Panel color			Milky white					
Air flow	High	m^3/h	500	500	500	680	680	680
	Medium		420	420	420	600	600	600
	Low		350	350	350	490	490	490
Sound pressure level (H/M/L)		dB(A)	36/33/23			42/36/29		
Weight		kg	16	16	16	18	18	18
Connecting pipe Dimensions	Liquid pipe	mm	φ6.35					
	Gas pipe	mm	φ12.70					
	Condensate drain pipe	mm	DN25					

Slim Duct

▶ COMFORT

Quiet Operation

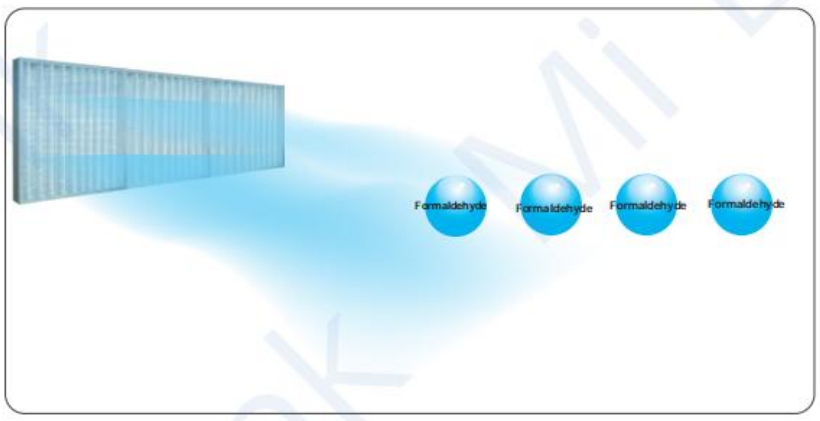
Use the brand-new CFD optimized duct and simulated fan blades to ensure softer air supply, and the auxiliary streamlined embedded foam wiring drain pan lowers noise of eddy current to 23 dB, equal to the normal human breathing sound.



▶ HEALTH

Health

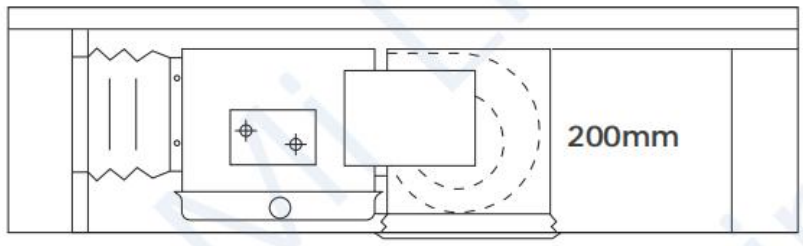
PM2.5, formaldehyde and antibacterial filters are to provide super-clean indoor environment.



▶ EASY INSTALLATION

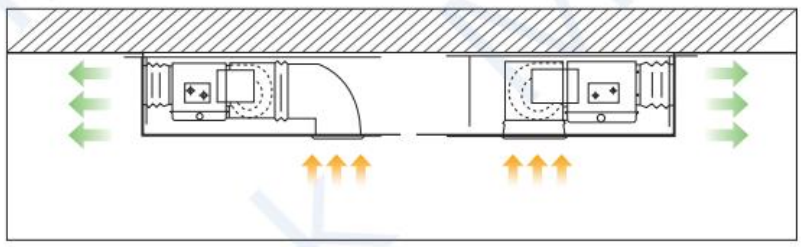
Compact Size

Designed with 200 mm thickness, the body is lighter and the installation space required is smaller, making it suitable for more small spaces.



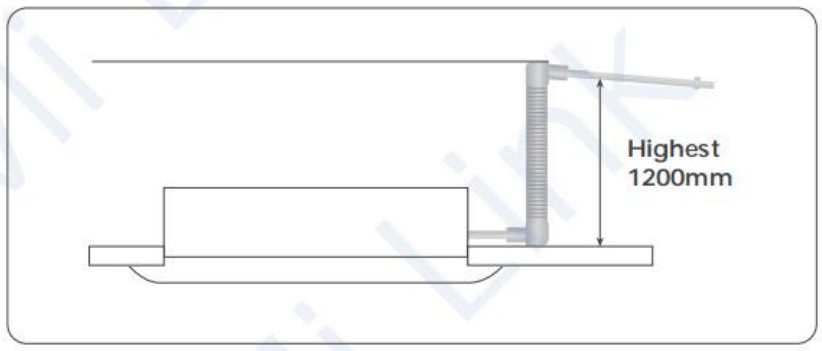
Diversified air return mode

The air return plenum as standard configuration may change air return mode based on the actual circumstances at the site to enable more flexible air return.



High-lift Drain Pump

Built-in with a fully-automatic drain pump. Pumping head is up to 1200mm, flexible for drainage pipe design.



Specifications

▶ Slim duct

Model (MLES-XX-AC)			022	025	028	032	036	040	045	050	056	063	071
Nominal cooling capacity		kW	2.2	2.5	2.8	3.2	3.6	4.0	4.5	5.0	5.6	6.3	7.1
Nominal heating capacity		kW	2.5	2.8	3.2	3.6	4.0	4.5	5.0	5.6	6.3	7.1	8.0
Power supply		V/N/Hz	220/1/50										
Motor type		-	AC motor										
Nominal input power		W	54	54	54	55	55	55	77	77	77	100	105
Dimensions (WxDxH)		mm	700×450×200						920×450×200			1140×450×200	
Air flow	High	m^3/h	500	500	500	560	560	560	750	750	750	920	1000
	Medium		370	370	370	430	430	430	620	620	620	710	800
	Low		310	310	310	360	360	360	550	550	550	590	680
ESP (adjustable)		Pa	10(30)										
Sound pressure level (H/M/L)		dB(A)	33/28/23	33/28/23	33/28/23	33/28/24	33/28/24	33/28/24	35/30/28	35/30/28	35/30/28	36/32/28	37/32/29
Weight		kg	17.5	17.5	17.5	17.5	17.5	17.5	21.5	21.5	21.5	28	28
Connecting pipe Dimensions	Liquid pipe	mm	φ6.35										φ9.52
	Gas pipe	mm	φ9.52			φ12.70							φ15.88
	Condensate drain pipe	mm	DN25										

▶ DC Slim duct

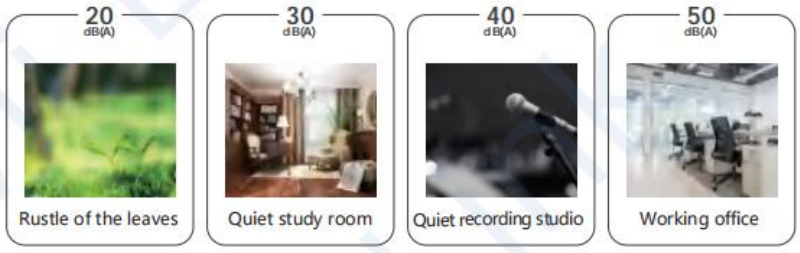
Model (MLES-XX-ACB)			022	025	028	032	036	040	045	050	056	063	071
Nominal cooling capacity		kW	2.2	2.5	2.8	3.2	3.6	4.0	4.5	5.0	5.6	6.3	7.1
Nominal heating capacity		kW	2.5	2.8	3.2	3.6	4.0	4.5	5.0	5.6	6.3	7.1	8.0
Power supply		V/N/Hz	220/1/50										
Motor type		-	DC motor										
Nominal input power		W	40	40	40	45	45	50	50	50	50	60	60
Dimensions (WxDxH)		mm	700×450×200						920×450×200			1140×450×200	
Air flow	High	m^3/h	500	500	500	560	560	750	750	750	750	920	1000
	Medium		370	370	370	430	430	620	620	620	620	710	800
	Low		310	310	310	360	360	550	550	550	550	590	680
ESP (adjustable)		Pa	10(30)										
Sound pressure level (H/M/L)		dB(A)	33/28/23			33/28/24			35/30/28			36/32/28	37/32/29
Weight		kg	17.5	17.5	17.5	17.5	17.5	21.5	21.5	21.5	21.5	28	28
Connecting pipe Dimensions	Liquid pipe	mm	φ6.35										φ9.52
	Gas pipe	mm	φ9.52			φ12.70							φ15.88
	Condensate drain pipe	mm	DN25										

Medium static pressure duct

▶ COMFORT

Quiet Operation

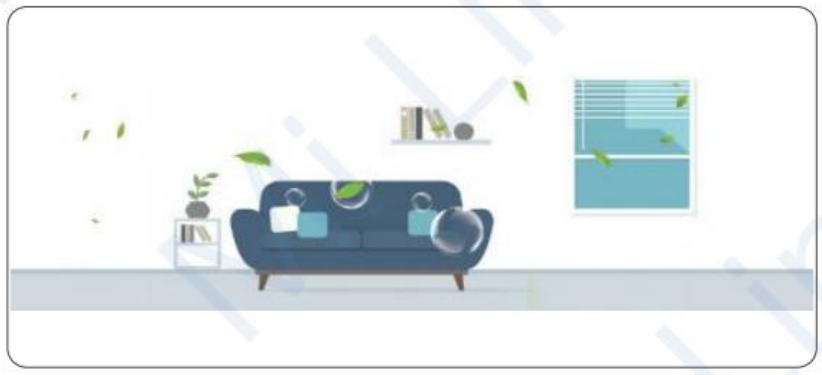
The fan motor of delicate and compact design equipped with brand-new propeller housing with vibration absorption function delivering operating noise as low as 33dB(A) to satisfy rigorous noise requirements at different sites.



▶ HEALTH

Health

Can be equipped with HYplus TP04/05/06 purification module as optional.(Changeable ESP type only)



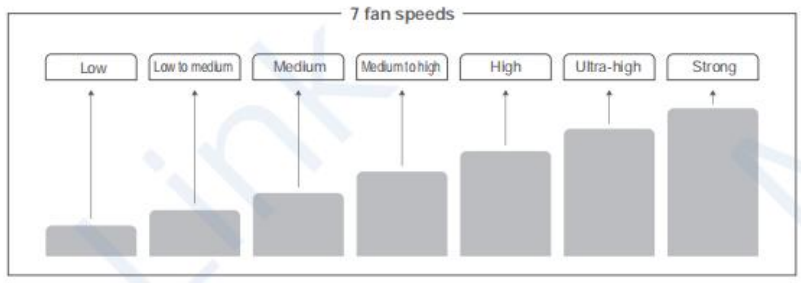
▶ AIR FLOW

Brushless DC motor

Brushless DC motor free of excitation loss and carbon brush loss, with the energy efficiency 30% higher than AC motor.

Seven fan speeds, up to 100Pa static pressure

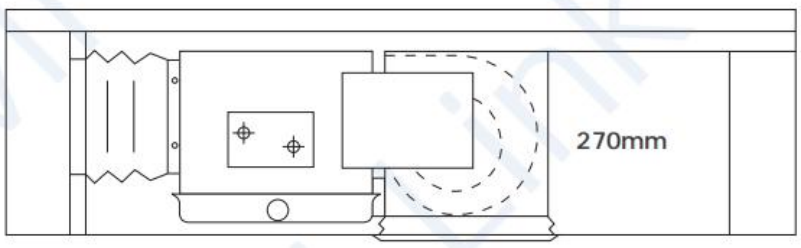
Multiple noise reduction measures and seven fan speeds can achieve low-noise operation for a quieter environment(as low as 33dB (A)).



▶ EASY INSTALLATION

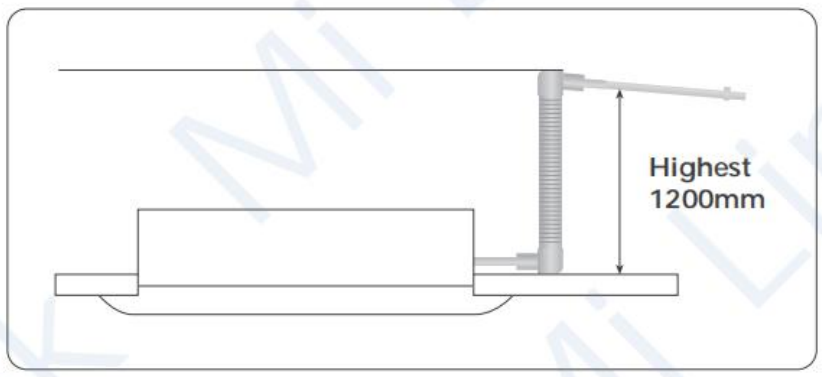
Compact Size

Thickness of only 270mm installed in a concealed way to lift the height of the suspended ceiling, especially suitable for ceilings with narrow height of suspended ceilings.



High-lift Drain Pump

Built-in with a fully-automatic drain pump. Pumping head is up to 1200mm, flexible for drainage pipe design.



Specifications

▶ Medium static pressure duct

Model (MLES-XX-AEB)			022	025	028	032	036	040	045	050	056	063
Nominal cooling capacity		kW	2.2	2.5	2.8	3.2	3.6	4.0	4.5	5.0	5.6	6.3
Nominal heating capacity		kW	2.5	2.8	3.2	3.6	4.0	4.5	5.0	5.6	6.3	7.1
Power supply		V/N/Hz	220/1/50									
Motor type		-	DC motor									
Nominal input power		W	35	35	35	40	40	40	45	45	45	60
Dimensions (WxDxH)		mm	920×450×200						1140×450×200			
Air flow	High	m^3/h	450	450	450	500	500	500	650	650	650	920
ESP (adjustable)		Pa	30（0/10/30/50）									
Sound pressure level (H/M/L)		dB(A)	33/31/26	33/31/26	33/31/26	33/31/26	33/31/26	33/31/26	35/33/27	35/33/27	35/33/27	37/34/27
Weight		kg	21.5	21.5	21.5	21.5	21.5	21.5	26.5	26.5	26.5	28
Connecting pipe Dimensions	Liquid pipe	mm	φ6.35									
	Gas pipe	mm	φ12.70									
	Condensate drain pipe	mm	DN25									

▶ Changeable ESP Duct

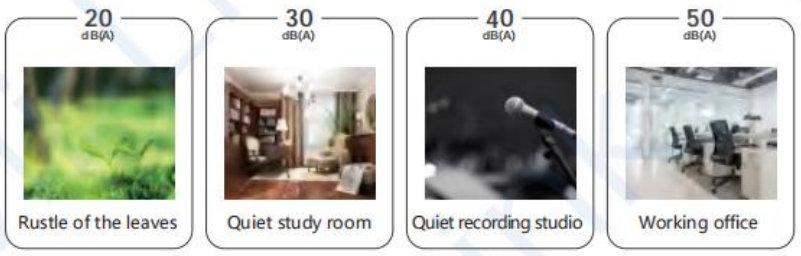
Model (MLES-XX-AE)			071	080	090	100	112	125	140	160
Nominal cooling capacity		kW	7.1	8.0	9.0	10.0	11.2	12.5	14.0	16.0
Nominal heating capacity		kW	8	9.0	10.0	11.2	12.5	14.0	16.0	18.0
Power supply		V/N/Hz	220/1/50							
Motor type		-	DC motor							
Nominal input power		W	110	130	130	160	160	160	200	200
Dimensions (WxDxH)		mm	1200×680×270							
Air flow	High	m3/h	1000	1300	1300	1600	1600	1600	2000	2000
ESP (adjustable)		Pa	50(30~100)	50(30~100)	50(30~100)	50(30~100)	50(30~100)	50(30~100)	50(30~100)	50(30~100)
Sound pressure level (H/M/L)		dB(A)	37/35/33	40/36/33	40/36/33	43/37/33	43/37/33	43/37/33	43/35/27	43/35/27
Weight		kg	34.5	34.5	34.5	37	37	37	38	38
Connecting pipe Dimensions	Liquid pipe	mm	φ9.52							
	Gas pipe	mm	φ15.88							
	Condensate drain pipe	mm	DN25							

High static pressure duct

▶ COMFORT

Quiet Operation

Brand-new noise reduction technology effectively reducing noises of the unit to provide quiet and pleasant environment.



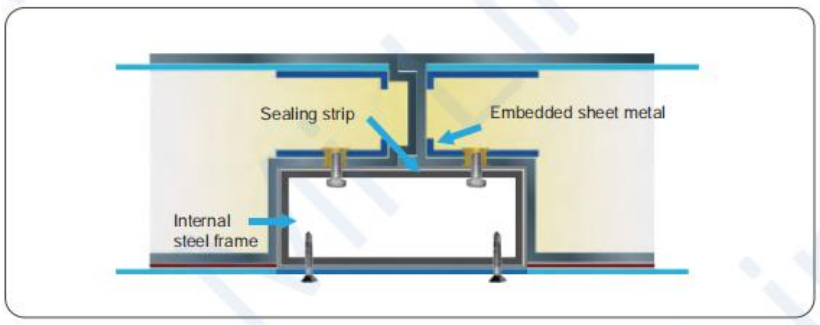
▶ AIR FLOW

Ultra-high static pressure design

The external static pressure reaches 200-300Pa, making it possible to connect long air duct to realize long distance air supply, especially suitable for scenarios needing air supply by long air ducts.

High-end double-wall design

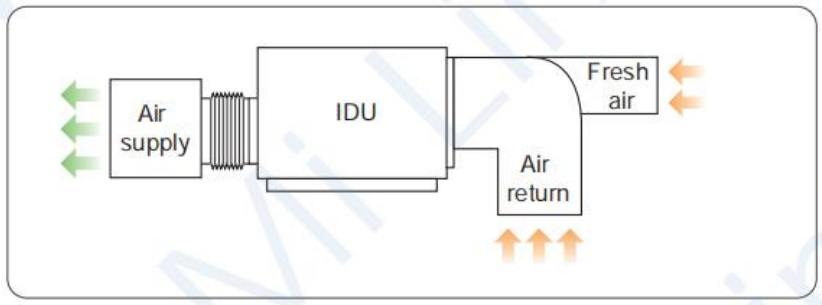
All the metal parts in the cabinet are isolated from outside metal parts, using polyurethane foam and specially designed sealing strips, avoiding the thermal insulation strips attached inside the common product to prevent condensation. Cold bridge and dripping are resolved, and the system noise is lower.



▶ HEALTH

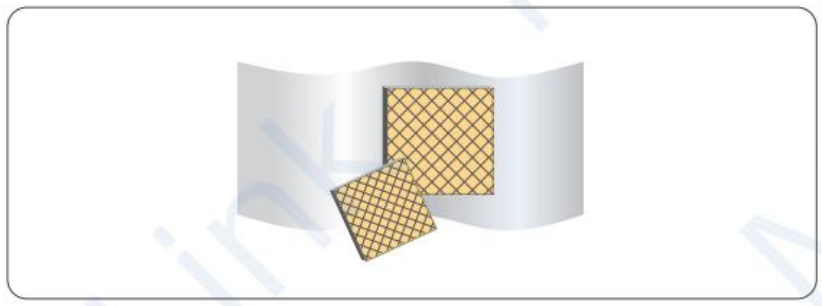
Intake fresh air to improve air quality

Small amount of outdoor fresh air can be introduced through the air duct to ensure the quality of room air.



Customized air purification program as optional

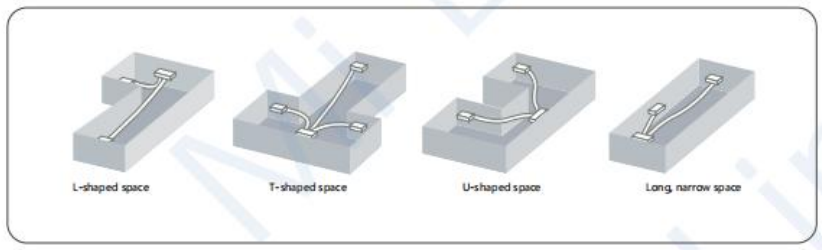
Customized air purification program, the antibacterial filtering layer including photocatalyst and activated carbon can effectively remove odors, dust, smoke, and formaldehyde, benzene and other hazardous substances in decorative materials to create a comfort room with fresh air.



▶ EASY INSTALLATION

Various air supply modes

Choosing different air supply modes as per room structure, one IDU of air conditioner can meet the diversified space requirements.



Hidden installation and elegant appearance

The IDU and duct are in the ceiling and can fit into the interior decoration perfectly.Specifications

Specifications

▶ High static pressure duct

Model (MLES-XX-AB)			100	112	125	140
Nominal cooling capacity		kW	10.0	11.2	12.5	14.0
Nominal heating capacity		kW	11.2	12.5	14.0	16.0
Power supply		V/N/Hz	220/1/50			
Motor type		-	AC motor			
Nominal input power		W	400	420	500	550
Dimensions (WxDxH)		mm	1200×750×390			
Air flow	High	m^3/h	1800	2000	2250	2700
	Medium		1450	1600	1800	2150
	Low		1050	1300	1450	1750
ESP (adjustable)		Pa	50（100/200）	50（100/200）	50（100/200）	50（100/200）
Sound pressure level (H/M/L)		dB(A)	49/46/42	49/46/42	51/47/43	51/47/43
Weight		kg	62	62	62	62
Connecting pipe Dimensions	Liquid pipe	mm	φ9.52			
	Gas pipe	mm	φ15.88			
	Condensate drain pipe	mm	DN25			

Model (MLES-XX-BI)			200	250	335	400	450	500	560	615
Nominal cooling capacity		kW	20.0	25.0	33.5	40.0	45.0	50.0	56.0	61.5
Nominal heating capacity		kW	22.4	27.0	37.5	45.0	50.0	56.0	63.0	69.0
Power supply		V/N/Hz	380/3/50							
Motor type		-	AC motor							
Nominal input power		W	1100	1100	2200	2200	3000	3000	3000	3000
Dimensions (WxDxH)		mm	906×1410×590		1006×1860×800				1006×2360×840	
Air flow		m^3/h	4000	4000	7000	7000	9000	9000	10000	10000
ESP		Pa	100/200	100/200	100/180/250	100/180/250	100/180/250	100/180/250	200/300	200/300
Sound pressure level		dB(A)	54	54	55	55	57	57	59	59
Weight		kg	100	100	200	200	200	200	260	260
Connecting pipe Dimensions	Liquid pipe	mm	φ12.7		φ15.88				φ19.05	
	Gas pipe	mm	φ22.23		φ28.6				φ31.8	
	Condensate drain pipe	mm	DN32							

Wall Mounted

▶ COMFORT

Quiet Operation

Brand-new highly efficient noise reduction motor built with the latest technology minimizing the noise of IDU.

▶ HEALTH

Wide air flow

The unique two-layered auto swing providing wider air supply range to optimize air flow compared to conventional units.

▶ EASY MAINTENANCE

Removable air return panel

The removable air return outlet panel facilitates the cleaning of filter and panel.

Specifications

▶ Wall-mounted

Model (MLES-XX-ACB)			028	036	040	056
Nominal cooling capacity		kW	2.8	3.6	4.0	5.6
Nominal heating capacity		kW	3.0	4.3	4.5	6.0
Power supply		V/N/Hz	220/1/50			
Motor type		-	DC motor			
Nominal input power		W	65	65	70	70
Dimensions (WxDxH)		mm	803×209×287			913×209×287
Air flow	High	m^3/h	600	600	600	750
	Medium		550	550	550	700
	Low		500	500	500	650
Sound pressure level (H/M/L)		dB(A)	40/36/32			45/41/35
Weight		kg	12	12	12	13
Connecting pipe Dimensions	Liquid pipe	mm	φ6.35			φ9.52
	Gas pipe	mm	φ9.52			φ15.88
	Condensate drain pipe	mm	DN20			

Celling & Floor

▶ COMFORT

Quiet Operation

Unequally spaced oblique angle large diameter through flow fan is used to ensure strong air supply, lower fan speed and lower energy consumption.

▶ HEALTH

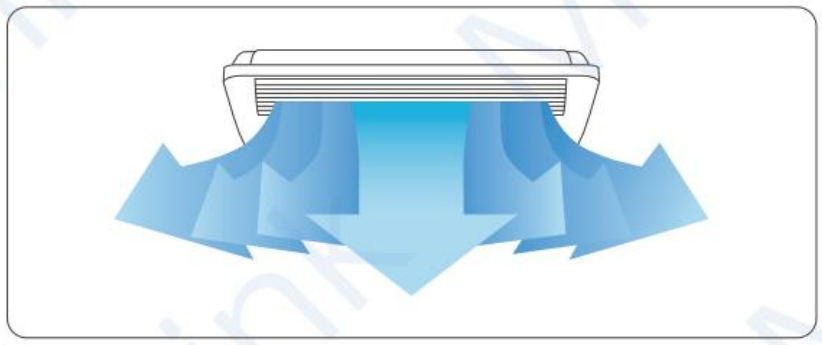
Health

An efficient filter device is equipped to completely filter dust, smoke and other small particles in the air, effectively preventing bacteria breeding and thoroughly improving the air quality.

▶ AIR FLOW

Wide air flow

Auto wide-range air supply guaranteed gentle, natural, and even air flow. Various air supply modes are available. Anti-cold wind design ensures more comfortable air supply in winter.



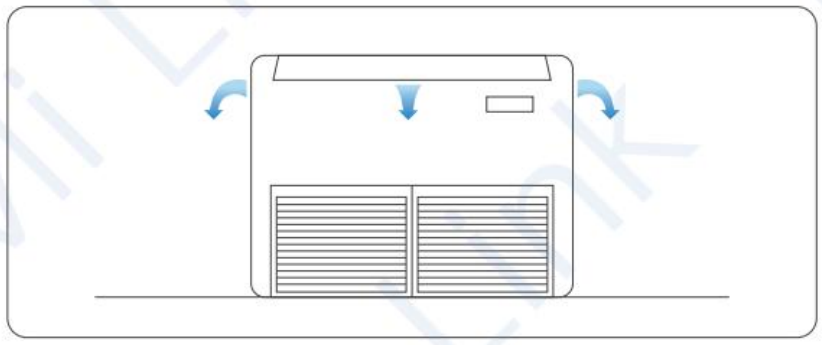
▶ EASY MAINTENANCE

Removable air return panel

The removable air return outlet panel facilitates the cleaning of filter and panel.

Single-side maintenance

All maintenance work and the removal of fan and motor can be implemented through the access hole on the side.



Specifications

▶ Ceiling & Floor

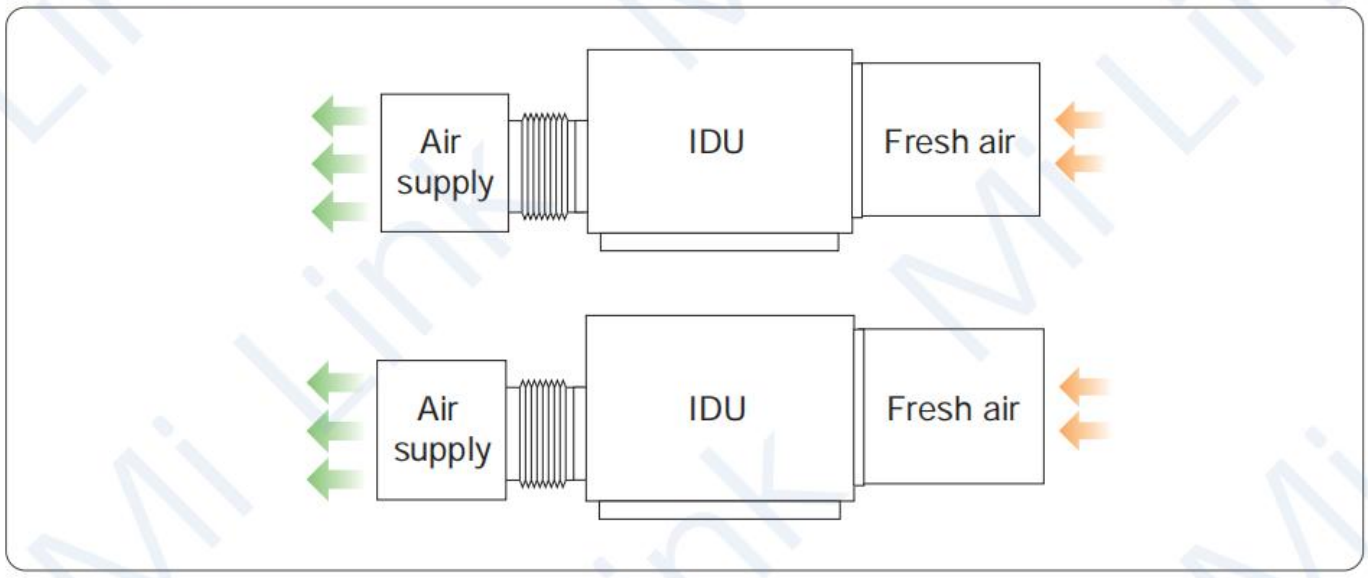
Model (MLES-XX-A)			028	036	056	071	090	112	125	140
Nominal cooling capacity		kW	2.8	3.6	5.6	7.1	9.0	11.2	12.5	14.0
Nominal heating capacity		kW	3.2	4.0	6.3	8.0	10.0	12.5	14.0	16.0
Power supply		V/N/Hz	220/1/50							
Motor type		-	AC motor							
Nominal input power		W	48	62	85	120	156	210	240	240
Dimensions (WxDxH)		mm	905×673×243			1288×673×243		1672×673×243		
Air flow	High	m^3/h	450	600	820	1100	1470	1800	2000	2000
	Medium		360	480	700	980	1280	1550	1680	1680
	Low		280	370	570	850	1060	1250	1350	1350
Sound pressure level (H/M/L)		dB(A)	42/39/36	43/40/38	45/42/40	47/44/41	49/46/42	50/47/44	51/48/45	51/48/45
Weight		kg	28	28	30	40	40	45	45	45
Connecting pipe Dimensions	Liquid pipe	mm	φ6.35			φ9.52				
	Gas pipe	mm	φ12.70			φ15.88				
	Condensate drain pipe	mm	DN25							

Full-fresh air handling unit

▶ HEALTH

Intake fresh air

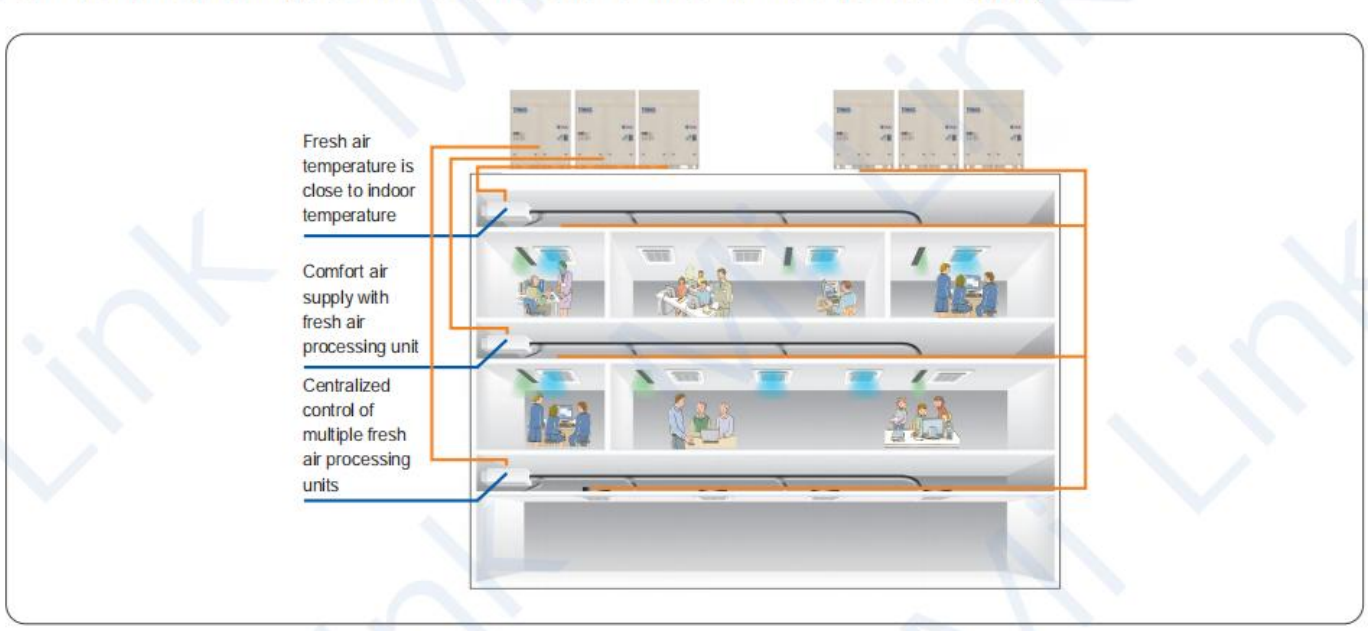
Intake fresh air to make the outdoor air close to room temperature through the indoor heat exchanger and the powerful heating/cooling capacity, so as to meet various requirements.



▶ AIR FLOW

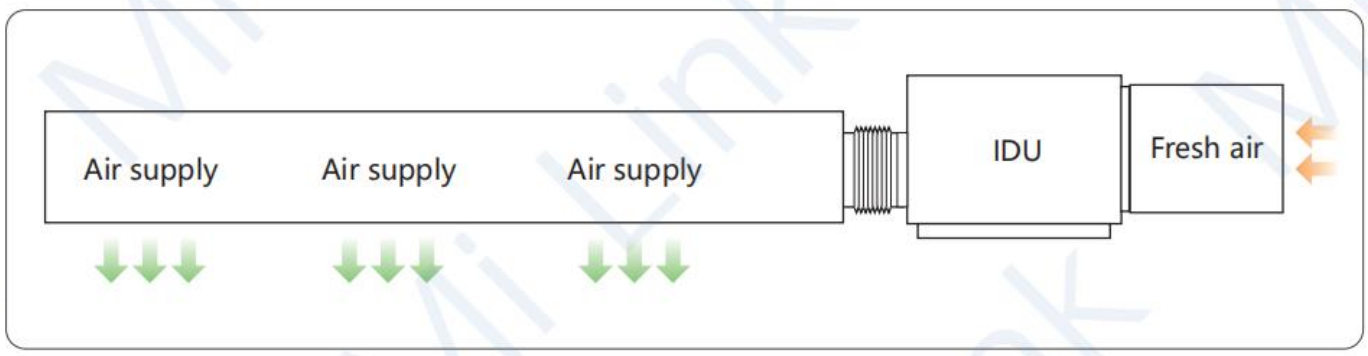
Multi-split unit for multi-point air supply

Air outlets can be flexibly configured to meet the requirements for multi-point air supply.



300Pa ultra-high static pressure

All fresh air handling unit has the static pressure up to 300 Pa, making it possible to connect extra-long air duct to realize long distance air supply and bring fresh and clean air to indoor places.



Specifications

▶ Full-fresh air handling unit

Model (MLES)			120A-020	175A-022	210A-020	250A-015	250A-020	250A-030	300A-020	400A-020	400A-030	500A-020	500A-030	600A-020	600A-030
Nominal cooling capacity		kW	14.0	25.0	28.0	28.0	28.0	28.0	28.0	45.0	45.0	56.0	56.0	56.0	56.0
Nominal heating capacity		kW	10.0	14.0	17.4	17.4	17.4	17.4	17.4	28.0	28.0	35.0	35.0	35.0	35.0
Power supply		V/N/Hz	220/1/50			380/3/50									
Motor type		-	AC motor												
Nominal input power		W	330	630	700	480	560	790	750	880	1290	1000	1400	1350	1700
Dimensions (WxDxH)		mm	1200×750×390	1300×820×500						1650×850×665		2000×850×665			
Air flow		m^3/h	1200	1750	2100	2500	2500	2500	3000	4000	4000	5000	5000	6000	6000
ESP		Pa	200	220	200	150	200	300	200	200	300	200	300	200	300
Sound pressure level		dB(A)	49	49	49	52	55	58	56	59	62	62	65	62	65
Weight		kg	62	75	75	75	75	75	75	140	140	165	165	165	165
Connecting pipe Dimensions	Liquid pipe	mm	φ9.52	φ12.70								φ15.88			
	Gas pipe	mm	φ15.88	φ22.23						φ25.58		φ28.58			
	Condensate drain pipe	mm	DN25												

Fresh Air Solutions

Care for every breath

97%

PM2.5 purification efficiency *1

90%

Formaldehyde purification efficiency *2

Fresh air introduction

Efficient PM2.5 filter

Chemical removal of formaldehyde

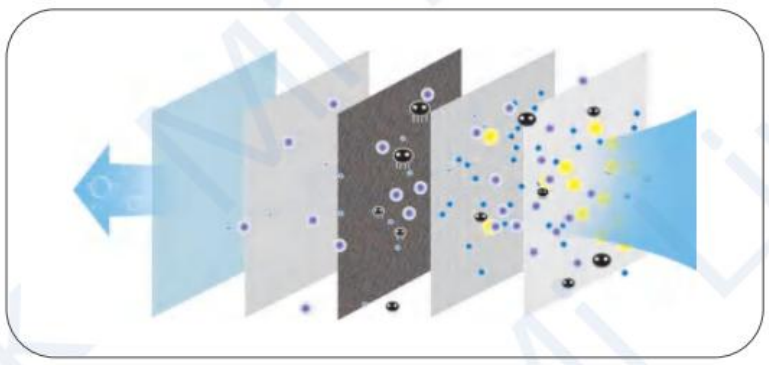
Sterilization

Heat Recovery Ventilator (HRV)

▶ Multiple haze removal

Must-have for haze removal

- Filtering offers layers of protection.
- The maximum PM2.5 removal rate is 95%.



▶ Omni-directional air replacement

Fresh air enjoyed without opening the window

The unit is ceiling-mounted in places not that noise-sentimental. With all air ports put indoors, it can ensure that air is supplied and discharged evenly and smoothly.

▶ Highly efficient energy recovery

Efficient heat exchange core

- The heat recovery core is formed by cross-laminating and rotating the single-sided corrugated, parallel paper sheets by 90°, with two mutually vertical and non-interfering channels. The fresh air and return air are able to exchange heat and humidity without being mixed when passing the two channels.
- With the latest technology of Japan, the parallel paper is even and tight, and boasts a heat recovery rate of 80%.

▶ Specifications

Model (MLES-XX)		015	025	035	050
Power supply	V/N/Hz	220/1/50			
Power Input	W	105	135	276	365/380
Current	A	0.5	0.6	1.25	1.7/1.76
Air flow rate	m^3/h	150	250	350	500
Purification efficiency	%	95	95	95	95
ESP	Pa	80	80	80	50/100
Heat exchange efficiency (heating/cooling)	%	85/67	82/63	80/62	73/61
Enthalpy exchange efficiency (heating/cooling)	%	75/55	72/52	68/51	64/50
Sound pressure level	dB(A)	32	34	39	43
Weight	kg	24	24	27	53
Dimension	mm	884×555×230			950×972×314

Standard series fresh air ventilators

▶ Patent structure and low air leakage rate

The junction part of the unit uses aluminum profile with a concave groove and a convex groove and is secured with bolts and nuts to form a patented labyrinth sealing structure, achieving the air leakage rate as low as 0.029% - only 1/66 of the air leakage rate allowed in the national standard and realizing lower operating costs.

▶ Elimination of cold bridge and rust

All the metal parts in the cabinet of MLES's high-capacity duct IDU are isolated from outside metal parts using polyurethane foam and specially designed sealing strips, avoiding the thermal insulation strips attached inside the common product to prevent condensation. Cold bridge and dripping are resolved, and the system noise is lower.

▶ High efficiency and energy saving

The full core heat exchanger achieves high heat exchange efficiency, temperature efficiency as high as 70% and enthalpy efficiency as high as 60%.

▶ Safe and reliable

The direct driven fan does not require maintenance. Only the filter needs to be cleaned regularly.

▶ Specification

Model (MLES-XX)			010FC	015FC	020FC	025FC	030FC	040FC	050FH	060FH	080FH	105FH
Air flow		m^3/h	1000	1500	2000	2500	3000	4000	5000	6000	8000	10500
ESP	Air supply	Pa	90	110	120	110	100	110	100	100	110	100
	Air discharge	Pa	90	110	120	110	100	110	100	100	110	100
Cooling	Temperature recovery efficiency	%	61	59	61	58	59	57	57	59	57	57
	Enthalpy recovery rate	%	52	51	53	50	51	50	50	51	50	50
Heating	Temperature recovery efficiency	%	72	71	73	70	71	69	69	71	69	69
	Enthalpy recovery rate	%	60	59	61	58	59	58	58	59	58	58
Motor power	Air supply	kW	0.2	0.3	0.45	0.55	0.55	1	1.5	0.55X2	1.00X2	1.50X2
	Air discharge	kW	0.2	0.3	0.45	0.55	0.55	1	1.5	0.55X2	1.00X2	1.50X2
Sound pressure level		dB(A)	53	53	55	56	58	59	62	62	63	66
Power supply		V/N/Hz	220/1/50			380/3/50						

High-end series fresh air ventilators

▶ Wide application

Wide air flow range: 1000m³/h~6000m³/h

Model models: Two-way ventilation and energy recovery

Apply to occasions such as residences, meeting rooms, labs, offices, equipment rooms, restaurants and gyms.

▶ High reliability

Structural design: The product is designed with a sheet metal structure, with insulation cotton attached inside.

▶ Easy installation

Convenient installation: The machine is positioned in the ceiling and does not occupy the indoor effective space.

Model (MLES-XX)			100	150	200	250	300	400	500	600
Fresh air flow		m^3/h	1000	1500	2000	2500	3000	4000	5000	6000
ESP		Pa	120	160	105	100	150	125	95	120
Enthalpy recovery rate	Cooling	%	51	51	51	51	58	51	57	58
	Heating	%	67	62	61	62	71	65	71	70
Temperature recovery efficiency	Cooling	%	67	61	61	64	64	67	67	67
	Heating	%	82	77	75	80	82	78	82	84
Sound pressure level		dB(A)	45	51	52	53	52	58	59	60
Input power of the entire unit		W	550	920	1310	1630	1900	1940	2790	3280
Current of the entire unit		A	2.7	4.2	6.3	7.6	8.7	5.3	7.3	7.8
Power supply		V/N/Hz	220/1/50					380/3/50		
Net Weight		Kg	100	143	175	185	198	290	360	390

HYplus Healthy VRF

Quadruple Filtration

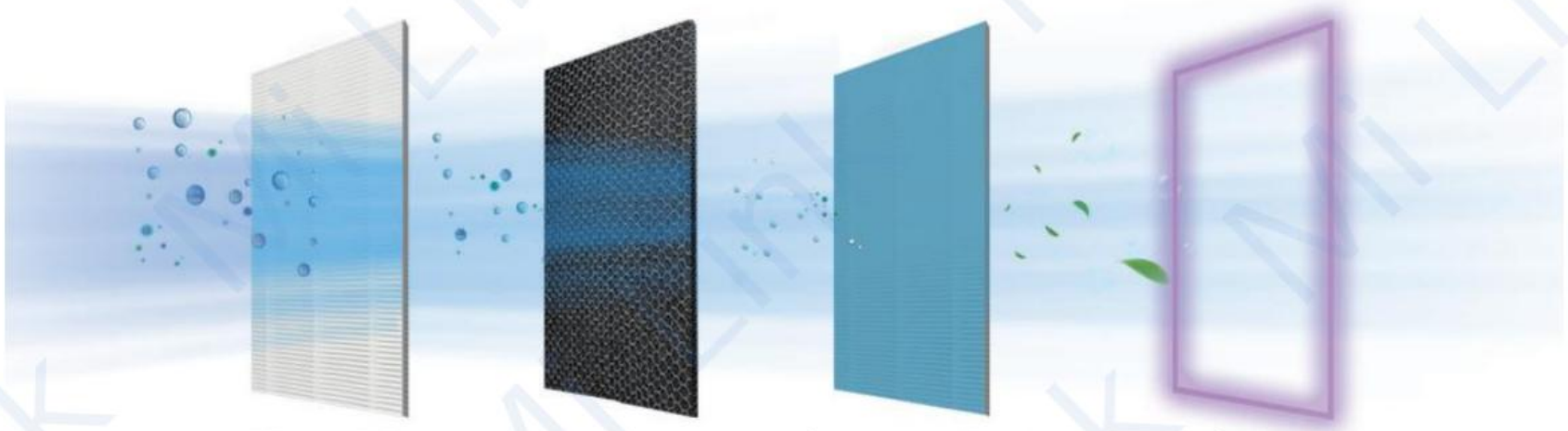
- Physical intercept
- Chemical aldehyde removal
- Silver ion bacteriostasis
- UVC disinfection

Healthy Air Is On the Way

▶ Basic Benefits of Healthy Air

Reduce Illness
Alleviate Allergies
Pet-Friendly
Sleep Better

▶ Quadruple Filtration



▶ Creating healthy life

Use chemical formaldehyde removal filters and the efficicncy is up to 95% in a 30 m³ lab module.

▶ Return to safe envirnoment

Use Argenzil and UVC to sterilize and inactivate.
The sterilization efficiency of Ag+ is 60000 times that of alcohol.
UVC light can denature and dissociate protein.
The primary purification efficiency of microbe is up to 90%.

Scene customization

Quadruple Filtration Type

PM2.5 cycle purification efficiency: 99.9%, 15mins
Microbe cycle efficiency: 99.9%, 30mins
Formaldehyde cycle purification efficiency: 90% 30mins

TPL

RNH_2

Argenzil

UVC

Medical Special Type

PM2.5 purification efficiency: 95%,
primary filtration Microbe efficiency: 95%,
primary filtration

TPL

Argenzil

UVC

Ultra-thin Purification Type

PM2.5 cycle purification efficiency: 97%, 1h
Microbe cycle efficiency: 99.9%, 2h
Formaldehyde cycle purification efficiency: 90% 1h

INTREPID

RNH_2

Silver ion

▶ Purify Module Matching Table

Type	Model	Capacity(kW)																	
		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
Hyplus-Ultra-thin Purification Type (TP03)	MLES	•	•	•	•	•	•	•	•	•	•	•							
Hyplus-Medical Special Type (TP04)	MLES											•	•	•	•	•	•	customize	customize
Hyplus-Microelectrostatic Type (TP05)*	MLES											•	•	•					
Hyplus-Quadruple Filtration Type (TP06)	MLES	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Note: "*" is not available now.

▶ HYplus IDU

Model MLES-ACANNN (TP03-AC motor)			022	025	028	032	036	040	045	050	056	063	071
Nominal cooling capacity		kW	2.2	2.5	2.8	3.2	3.6	4.0	4.5	5.0	5.6	6.3	7.1
Nominal heating capacity		kW	2.5	2.8	3.2	3.6	4.0	4.5	5.0	5.6	6.3	7.1	8.0
Power supply		V/N/Hz	220/1/50										
Motor type		-	AC motor										
Nominal input power		W	54	54	54	55	55	55	77	77	77	100	105
Dimensions (WxDxH)		mm	700×450×200						920×450×200			1140×450×200	
Air flow	High	m^3/h	500	500	500	560	560	560	750	750	750	920	1000
	Medium		370	370	370	430	430	430	620	620	620	710	800
	Low		310	310	310	360	360	360	550	550	550	590	680
ESP (adjustable)		Pa	10(30)										
Sound pressure level (H/M/L)		dB(A)	33/28/23	33/28/23	33/28/23	33/28/24	33/28/24	33/28/24	35/30/28	35/30/28	35/30/28	36/32/28	37/32/29
Weight		kg	17.5	17.5	17.5	17.5	17.5	17.5	21.5	21.5	21.5	28	28
Connecting pipe Dimensions	Liquid pipe	mm	φ6.35										φ9.52
	Gas pipe	mm	φ9.52			φ12.70							φ15.88
	Condensate drain pipe	mm	DN25										
Dimension of filter		mm	18.5×700×200						18.5×920×200			18.5×1140×200	

Model MLES-ACBNNN (TP03-DC motor)			022	025	028	032	036	040	045	050	056	063	071
Nominal cooling capacity		kW	2.2	2.5	2.8	3.2	3.6	4.0	4.5	5.0	5.6	6.3	7.1
Nominal heating capacity		kW	2.5	2.8	3.2	3.6	4.0	4.5	5.0	5.6	6.3	7.1	8.0
Power supply		V/N/Hz	220/1/50										
Motor type		-	DC motor										
Nominal input power		W	40	40	40	45	45	50	50	50	50	60	60
Dimensions (WxDxH)		mm	700×450×200					920×450×200				1140×450×200	
Air flow	High	m^3/h	500	500	500	560	560	750	750	750	750	920	1000
	Medium		370	370	370	430	430	620	620	620	620	710	800
	Low		310	310	310	360	360	550	550	550	550	590	680
ESP (adjustable)		Pa	10(30)										
Sound pressure level (H/M/L)		dB(A)	33/28/23			33/28/24		35/30/28				36/32/28	37/32/29
Weight		kg	17.5	17.5	17.5	17.5	17.5	21.5	21.5	21.5	21.5	28	28
Connecting pipe Dimensions	Liquid pipe	mm	φ6.35			φ9.52							
	Gas pipe	mm	φ9.52			φ12.70							
	Condensate drain pipe	mm	DN25										
Dimension of filter		mm	18.5×700×200					18.5×920×200				18.5×1140×200	

▶ HYplus IDU

Model MLES-AEBNNN (TP06)			022	025	028	032	036	040	045	050	056
Nominal cooling capacity		kW	2.2	2.5	2.8	3.2	3.6	4.0	4.5	5.0	5.6
Nominal heating capacity		kW	2.5	2.8	3.2	3.6	4.0	4.5	5.0	5.6	6.3
Power supply		V/N/Hz	220/1/50								
Motor type		-	DC motor								
Nominal input power		W	35	35	35	40	40	40	45	45	45
Dimensions (WxDxH)		mm	920×450×200						1140×450×200		
Air flow	High	m^3/h	450	450	450	500	500	500	650	650	650
ESP (adjustable)		Pa	10(0~30)								
Sound pressure level (H/M/L)		dB(A)	33/28/23			33/28/24			35/30/28		
Weight		kg	21.5						26.5		
Connecting pipe Dimensions	Liquid pipe	mm	φ6.35								
	Gas pipe	mm	φ12.70								
	Condensate drain pipe	mm	DN25								
Dimension of filter		mm	42×920×200						42×1140×200		

Model MLES-AEBNNN (TP04)			071	080	090	100	112	125	140	160
Nominal cooling capacity		kW	7.1	8.0	9.0	10.0	11.2	12.5	14.0	16.0
Nominal heating capacity		kW	8.0	9.0	10.0	11.2	12.5	14.0	16.0	18.0
Power supply		V/N/Hz	220/1/50							
Motor type		-	DC motor							
Nominal input power		W	100	130	130	160	160	160	200	200
Dimensions (WxDxH)		mm	1200×680×270							
Air flow	High	m^3/h	1000	1300	1300	1600	1600	1600	2000	2000
ESP (adjustable)		Pa	10(0~50)							
Sound pressure level (H/M/L)		dB(A)	37/32/29	40/36/33	40/36/33	43/37/33	43/37/33	43/37/33	43/35/27	43/35/27
Weight		kg	34.5	34.5	34.5	37	37	37	38	38
Connecting pipe Dimensions	Liquid pipe	mm	φ9.52							
	Gas pipe	mm	φ15.88							
	Condensate drain pipe	mm	DN25							
Dimension of filter		mm	150×1200×270							

Model MLES-TP04			071AEBNNN	080AEBNNN	090AEBNNN	100AEBNNN	112AEBNNN	125AEBNNN	140AEBNNN	160AEBNNN
Nominal cooling capacity		kW	7.1	8.0	9.0	10.0	11.2	12.5	14.0	16.0
Nominal heating capacity		kW	8.0	9.0	10.0	11.2	12.5	14.0	16.0	18.0
Power supply		V/N/Hz	220/1/50							
Motor type		-	DC motor							
Nominal input power		W	100	130	130	160	160	160	200	200
Dimensions (WxDxH)		mm	1200×680×270							
Air flow	High	m^3/h	1000	1300	1300	1600	1600	1600	2000	2000
ESP (adjustable)		Pa	10(0~50)							
Sound pressure level (H/M/L)		dB(A)	37/32/29	40/36/33	40/36/33	43/37/33	43/37/33	43/37/33	43/35/27	43/35/27
Weight		kg	34.5	34.5	34.5	37	37	37	38	38
Connecting pipe Dimensions	Liquid pipe	mm	φ9.52							
	Gas pipe	mm	φ15.88							
	Condensate drain pipe	mm	DN25							
Dimension of filter		mm	150×1200×270							

Intelligent Control

Provide you with convenient services

APP

Intelligent control

2048

IDUs centralized control

Indivisual controller

Centralized controller

Building Management System (BMS)

Software

Wireless Remote Controller

Mode Setting: Cool/Heat/Dry/Fan/Auto
Scheduled power-on/off
Temperature setting
Fan speed setting: High/Medium/Low/Auto
Eco/Quiet/Sleep functions
Vertical swing/Horizontal swing

MC311

Wired Remote Controllers

86×86mm panel, LED
Error reporting
ON/OFF, swing, memory function, etc.
Cool/Heat/Auto/Fan/Dry modes
Temperature setting, timer power-on/-off
Touch keys
Filter cleaning reminder
Background light

VMC315/TE300

Central Controllers

8-inch colored touchscreen
Supports centralized control of a maximum of 64 IDUs in 8 systems
Setting, management and monitoring (set temperature,air flow) of IDU
Accessible to IDU/ODU network
Schedul control by week/month/year
Unified management of IDU groups
Statistics of changes in running statuses of all devices in a certain time period.
Fault display, parameter status query, device query, and permission management
Display of indoor environmental indicators (IDU needs to be equipped with sensor nodes)

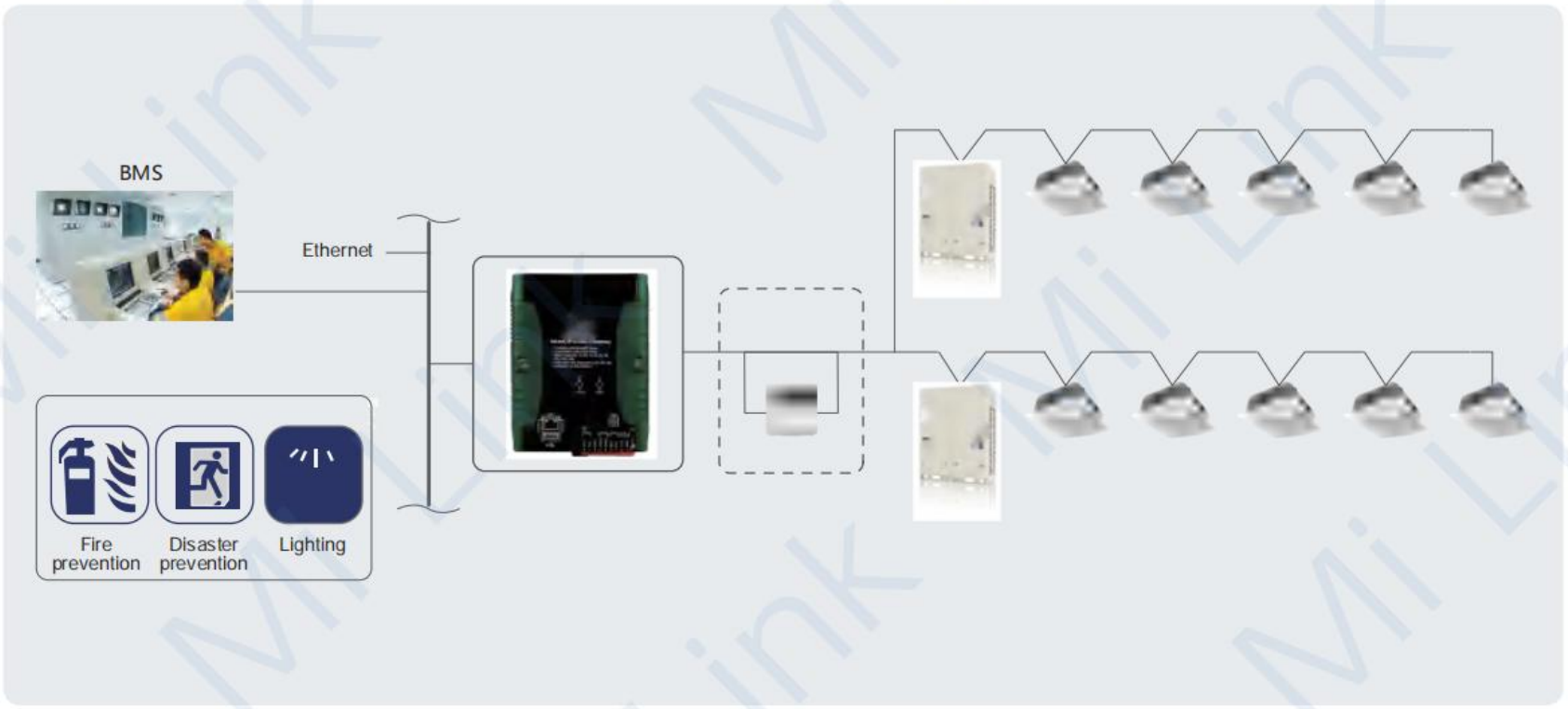
HMIPAD

Building Management System (BMS)

- MLES adopts multiple BMSs to access to the BAS for comprehensively auto control.
- MLES BMS supports access via ModBus. Up to 1024 IDUs and 16 ODUs can be connected.

▶ Basic control functions

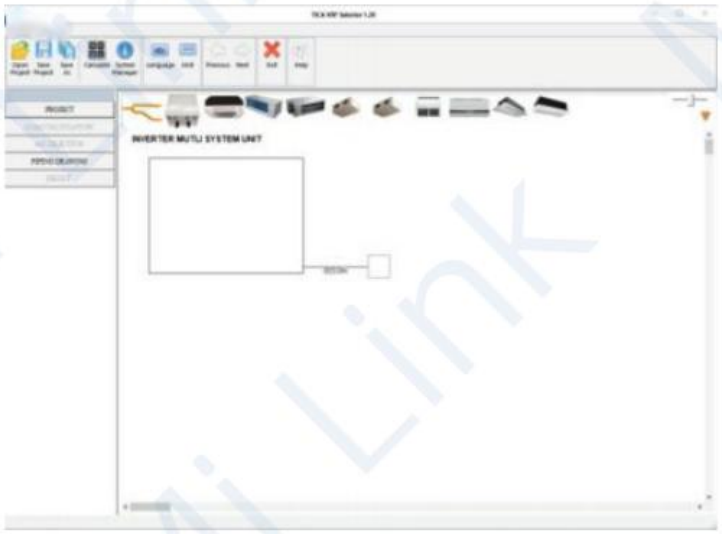
1. AC on/off, operation, and monitoring the operation status
2. Monitoring the IDU error code
3. Monitoring and setting the IDU temperature
4. Monitoring and switching the operating mode
5. Remote controller lock function
6. Service monitoring
7. Auto running
8. Mode lock function, user can lock the running mode of indoor unit
9. Free management by group
10. Complete schedule management
11. Historical data records
12. Schedule control by week/month/year
13. Centralized control function
14. Interlock control (fire alarm, door lock, fault, etc.)

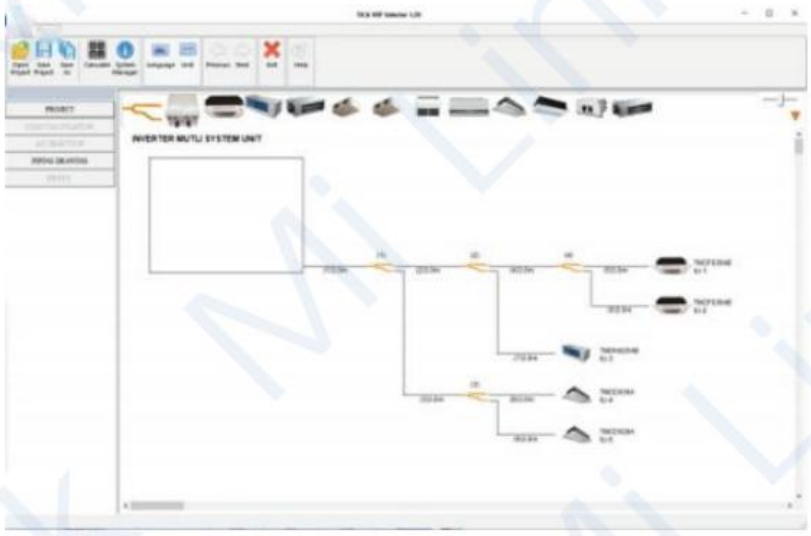


Intelligent software

▶ Selection software

MLES dedicated to provide the best HVAC engineering support and solutions focused on effectively designed, built, supervised and maintained throughout the lifecycle, providing our customers a faster,easier, and a more accurate way in everyday duties.

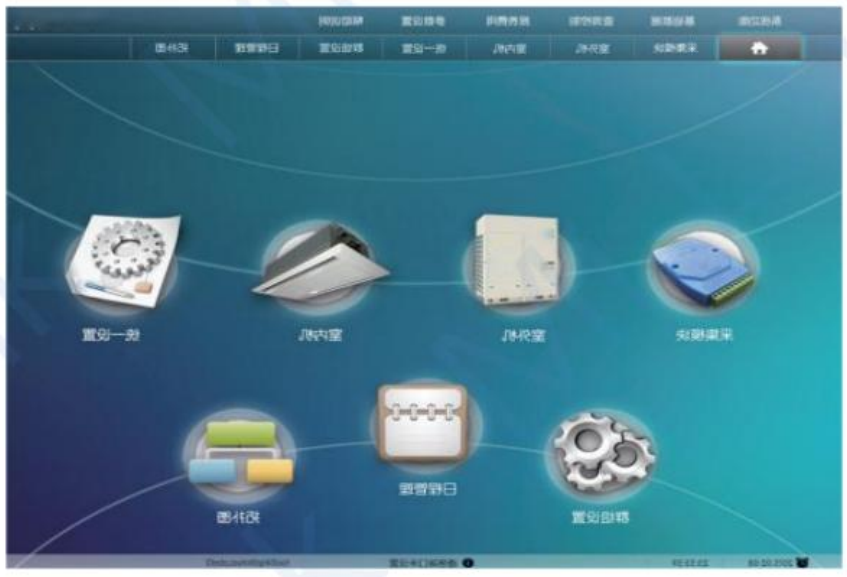




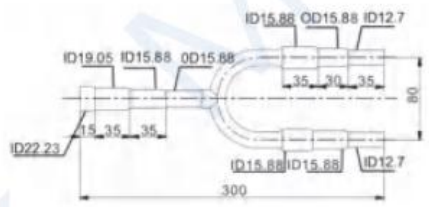
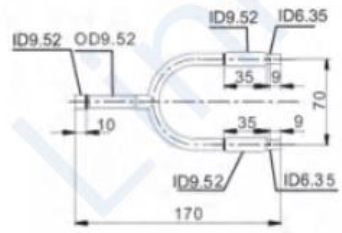
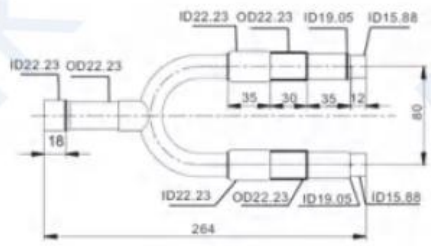
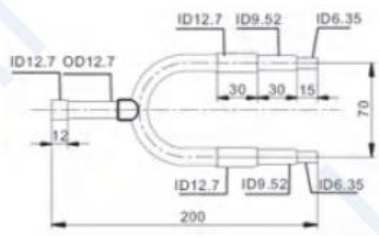
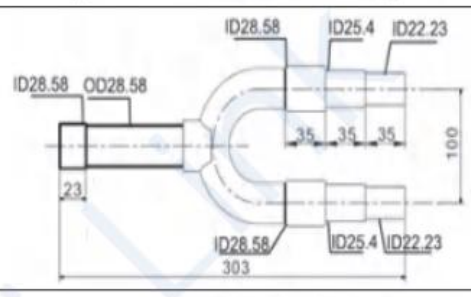
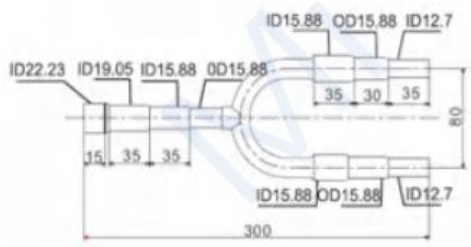
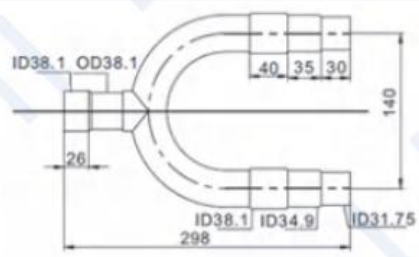
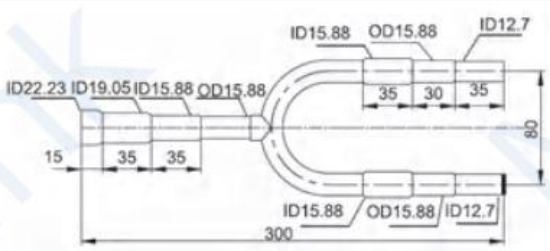
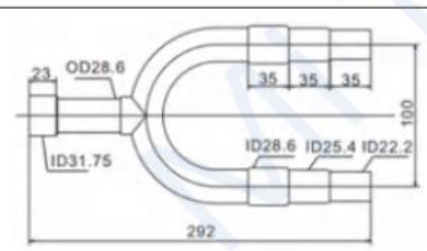
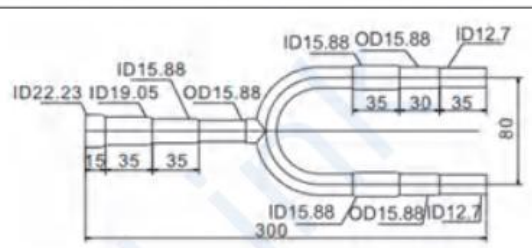
▶ Management software

The IDUs are connected to a computer by the data acquisition module, so that full centralized control can be implemented on this management software. The control function is very powerful, and operations are simple and clear. One set of software supports up to 32 systems and 2048 IDUs for large-scale centralized control. The control signal of data acquisition module can reach up to 1200 m.

- Free management by group
- Complete schedule management
- Historical data records
- Schedule control by week/month/year
- Centralized control function
- Centralized control over air conditioning systems in multiple buildings at the same place
- Permission setting
- Temperature setting, timer power-on/-off
- Error reporting
- Interlocking control
- Remote management



Branch Pipe

Model	Appearance	Dimension	
		Gas side joints	Liquid side joints
MLT4022TA			
MLT4033TA			
MLT4072TA			
MLT4073TA			
MLT4090TA			
MLT4135TA