



Quantum Series (LA)

Cooling Only 220V 60Hz



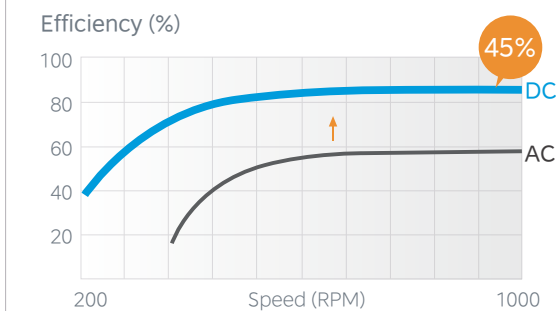
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Full DC Inverter Technology

The system utilizes DC inverter compressors and fan motors which enables high-precision and stepless speed adjustment for maximum efficiency, consistently stable operation and reduced noise levels.



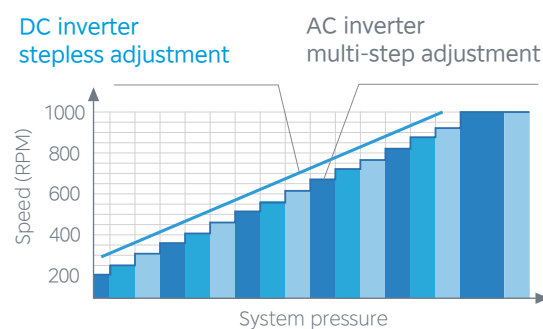
Wider frequency adjustment range



Faster cooling

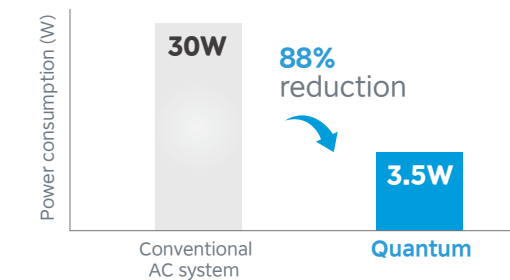


Higher energy efficiency



Low Standby Power Consumption

In contrast to the standard 30W standby power consumption of traditional AC systems, the quantum outdoor unit employs an optimized control scheme, lowering standby power requirements to as little as 3.5W.



ShieldBox

IP55 fully-enclosed electrical control box provides robust protection for internal electrical components, greatly improving system reliability.



Corrosion proof



Dustproof



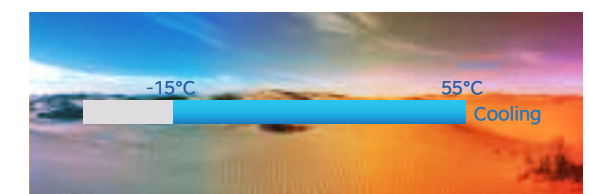
Rainproof/Snowproof



Insect proof

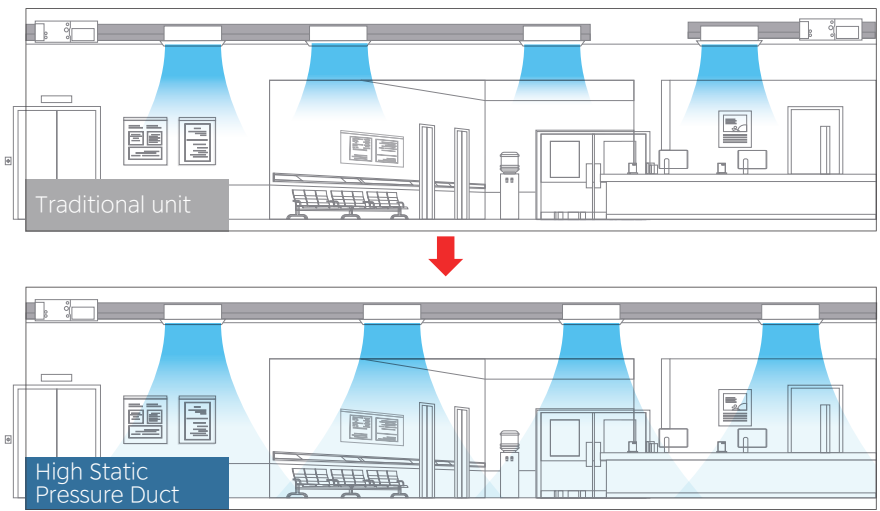
Wide Operation Range

Thanks to refrigerant cooling technology, the Quantum(LA) Series can operate at temperature up to 55°C for cooling.



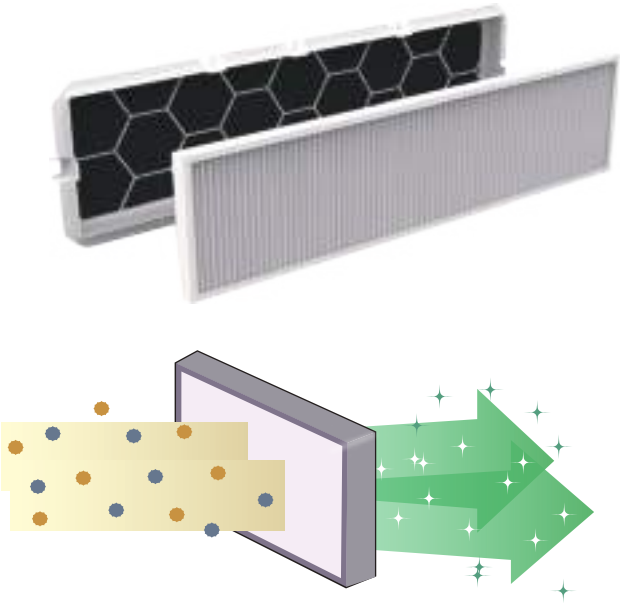
Static Pressure Up to 400Pa

The maximum static pressure of the 96k/120k/180k models can reach 400Pa, while that of the 240k model can reach 150 Pa, allowing for longer air supply distances. This is particularly beneficial in long and narrow spaces like corridors, while also reducing the total number of units needed and saving on capital costs.



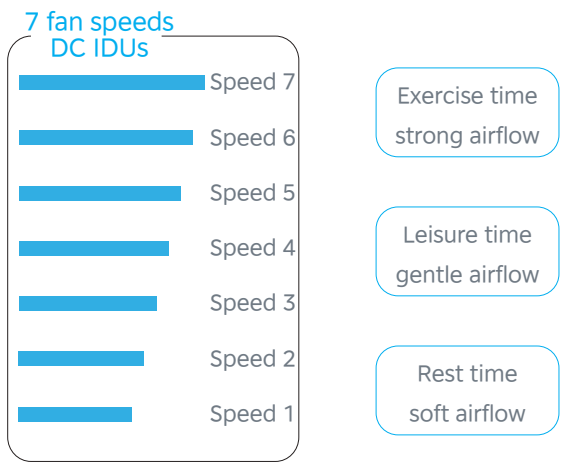
Efficiency Filter Screen

Optional F7 or H13-class air filter, Equipped with H13 HEPA high-efficiency filter screen, it can filter 0.5 micron extremely fine particles, and the primary filtration efficiency is more than 99.95%.



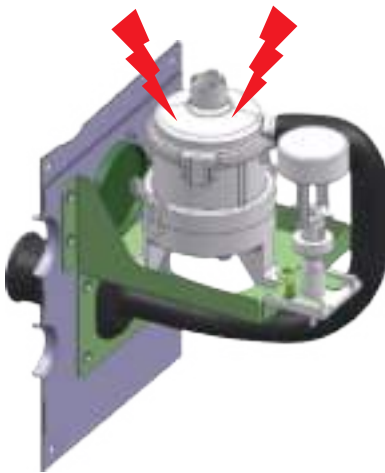
Multiple Fan Speeds

The 7 indoor fan speed options meet the needs of different indoor conditions.



Intelligent Leak Feedback

Digital feedback DC water pump, Take the initiative to sense the pump speed and water flow, judge whether there is jamming attenuation or damage, and give early warning to avoid water leakage. Integrated drainage pipe design reduces the sealing points of traditional design from 6 to 2, reduces breakpoints and reduces leakage risks.



Quantum Lineup

kBtu/h	Outdoor unit	Indoor unit
96		
120		
180		
240		

Outdoor Unit Specifications

Model name			MOVL-96CD1N1-Y	MOVL-120CD1N1-Y	MOVL-180CD1N1-Y	MOVL-240CD1N1-Y
Power supply		V/Ph/Hz	220/3/60	220/3/60	220/3/60	220/3/60
T1 Cooling ¹	Capacity	kW	28.0	35.0	52.5	70.0
		kBtu/h	95.5	119.4	179.0	238.7
	Power input	kW	9.52	12.37	19.37	26.42
	EER		2.94	2.83	2.71	2.65
Compressor	Type		DC inverter			
	Quantity		1	1	2	2
	Oil type		FV68H	FV68H	FV68H	FV68H
	Start-up method		Soft start	Soft start	Soft start	Soft start
Fan	Type		Propeller	Propeller	Propeller	Propeller
	Motor type		DC	DC	DC	DC
	Quantity		1	1	2	2
	Motor output	kW	0.56	0.92	0.56+0.56	0.56+0.56
	Airflow rate	m ³ /h	12600	15600	20500	21500
	Drive type		Direct	Direct	Direct	Direct
Refrigerant	Type		R410A	R410A	R410A	R410A
	Factory charge	kg	7.4	8.4	12.8	15.4
Oil	Factory charge	L	5+1.1	5+1.1	7+1.1+1.1	7+1.1+1.1
Sound pressure level		dB(A)	58	60	63	64
Pipe connections	Liquid pipe	mm	Φ12.7	Φ15.9	Φ19.1	Φ22.2
	Gas pipe	mm	Φ25.4	Φ28.6	Φ31.8	Φ31.8
Net dimensions (W×H×D)		mm	940×1760×825		1340×1760×825	
Packed dimensions (W×H×D)		mm	1010×1945×890		1410×1945×890	
Net weight		kg	190	200	315	330
Gross weight		kg	205	215	335	350
Ambient temp. operation range (Cooling)		°C	-15~55	-15~55	-15~55	-15~55

Note:
1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.

Indoor Unit Specifications

Model name			MHL2-96CQN1	MHL2-120CQN1	MHL2-180CQN1	MHL2-240CQN1
Power supply			1-phase, 220-240V, 60Hz			
Cooling ¹	Capacity	kW	28.0	35.0	52.5	70.0
		kBut/h	95.5	119.4	179.0	238.7
	Input	W	780	810	2030	2350
Fan motor type			DC			
Airflow rate ³		m ³ /h	4700/4387/4073/3760/3447/3133/2820	4700/4387/4073/3760/3447/3133/2820	8400/7840/7280/6720/6160/5600/5040	11000/10267/9533/8800/8067/7334/6600
External static pressure ⁴		Pa	200(0~400)		300 (0~400)	100 (0~150)
Sound pressure level ⁵		dB(A)	51/50/48/46/44/43/42	52/51/49/48/46/44/43	59/58/56/54/53/51/49	65/64/62/60/59/57/55
Net dimensions ⁶ (W×H×D)		mm	1310×580×1050		1860×580×1050	
Packed dimensions (W×H×D)		mm	1530×725×1060		2080×725×1060	
Net/Gross weight		kg	123/150	125/152	170/204	170/204
Refrigerant type			R410A			
Throttle type			Electronic expansion valve			
Wired controller model			WDC3-86S (customizable in 86T and 120T)			
Design pressure (H/L)		MPa	4.4/2.6			
Pipe connections	Liquid/Gas pipe	mm	Φ12.7/Φ22.2	Φ12.7/Φ22.2	Φ16/Φ28.6	Φ16/Φ28.6
	Drain pipe	mm	Φ32	Φ32	Φ32	Φ32

Notes:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
3. Stable operation external static pressure range. (Note: setting external static pressure outside the unit's optimal static pressure range may lead to higher noise levels and lower airflow rate. For the optimal external static pressure range refer to the unit's installation manual.)
4. Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in a semi-anechoic chamber.
5. Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.
6. All specifications are measured at standard external static pressure.

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