



ROW-TYPE AIR CONDITIONING

列间空调



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PRODUCT INTRODUCTION

产品简介

The L Series inter-row air conditioning system is a precision air conditioning product line designed for high-density data centers. It features multiple cooling methods including air-cooled direct expansion and chilled water systems. With a heat source proximity design and sealed cold/hot channels, it significantly enhances cooling efficiency. The high AER system design and precision control effectively reduce PUE in the server room.

列间空调 L 系列针对高热密度数据中心的精密空调系列产品。拥有风冷直膨式、冷冻水式等多种制冷方式。贴近热源设计，封闭冷、热通道，大幅度提高制冷效率，通过高 AER 系统设计与精密控制，有效降低机房 PUE

ENERGY-EFFICIENT

高效节能

Positioned close to heat sources for high cooling efficiency, it minimizes localized hot spots. The fully visible heat design matches data center loads, with high-efficiency EC fans and EC compressors/water valves working in tandem. Features infinitely adjustable cooling capacity and an optimized structure to reduce air resistance, power consumption, and noise.

贴近热源，制冷效率高，减少局部热点，全显热设计，匹配机房负荷，高效 EC 风机与 EC 压缩机 / 水阀配合，冷量无极调节，结构优化设计，降低风阻、功率及噪音。

HIGH RELIABILITY

高可靠性

The system operates continuously 24/7 with a 10-year design lifespan. All components undergo rigorous inspection and testing for stable performance. Featuring a PTC heater, it ensures safe and reliable operation through multiple protective functions.

24 小时 ×365 天连续不间断运行，设计寿命 10 年所有配件均经过严格的检验、测试，性能稳定采用 PTC 加热器，安全可靠多重保护功能，确保机组运行可靠。

COMPACT STRUCTURE

结构紧凑

The modular design of the unit allows flexible assembly with multiple return air configurations, adaptable to diverse application scenarios. Its compact and optimized structure saves space, while the full-front maintenance design reduces required space.

机组结构模块化设计，组装灵活可选多种回出风方式，适应各种应用场景结构紧凑优化设计，节省占地空间全正面维护设计，节省维护空间。

INTELLIGENT CONTROL

智能控制

A large LCD display in Chinese/English shows real-time status of all components in the environmental temperature-humidity meter unit. The dedicated controller features advanced PID control technology with comprehensive protection and alarm functions, master-level diagnostic capabilities, and an RS485 intelligent communication interface for seamless remote monitoring and online group control.

中 / 英文 LCD 大显示屏，显示环境温湿度计机组各部件运行状态恒温恒湿空调专用控制器，先进的 PID 控制技术完备的保护和告警功能，大师级的诊断功能 RS485 智能通信接口，轻松实现远程监控、联机群控。

XL SERIES AIR-CONDITIONING (AIR-COOLED) TECHNICAL

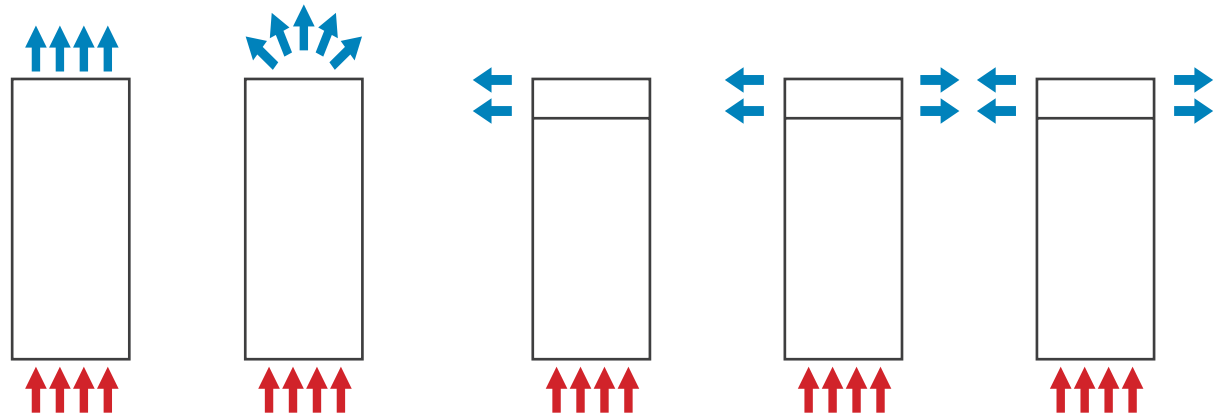
XL 系列 空调（风冷）技术参数

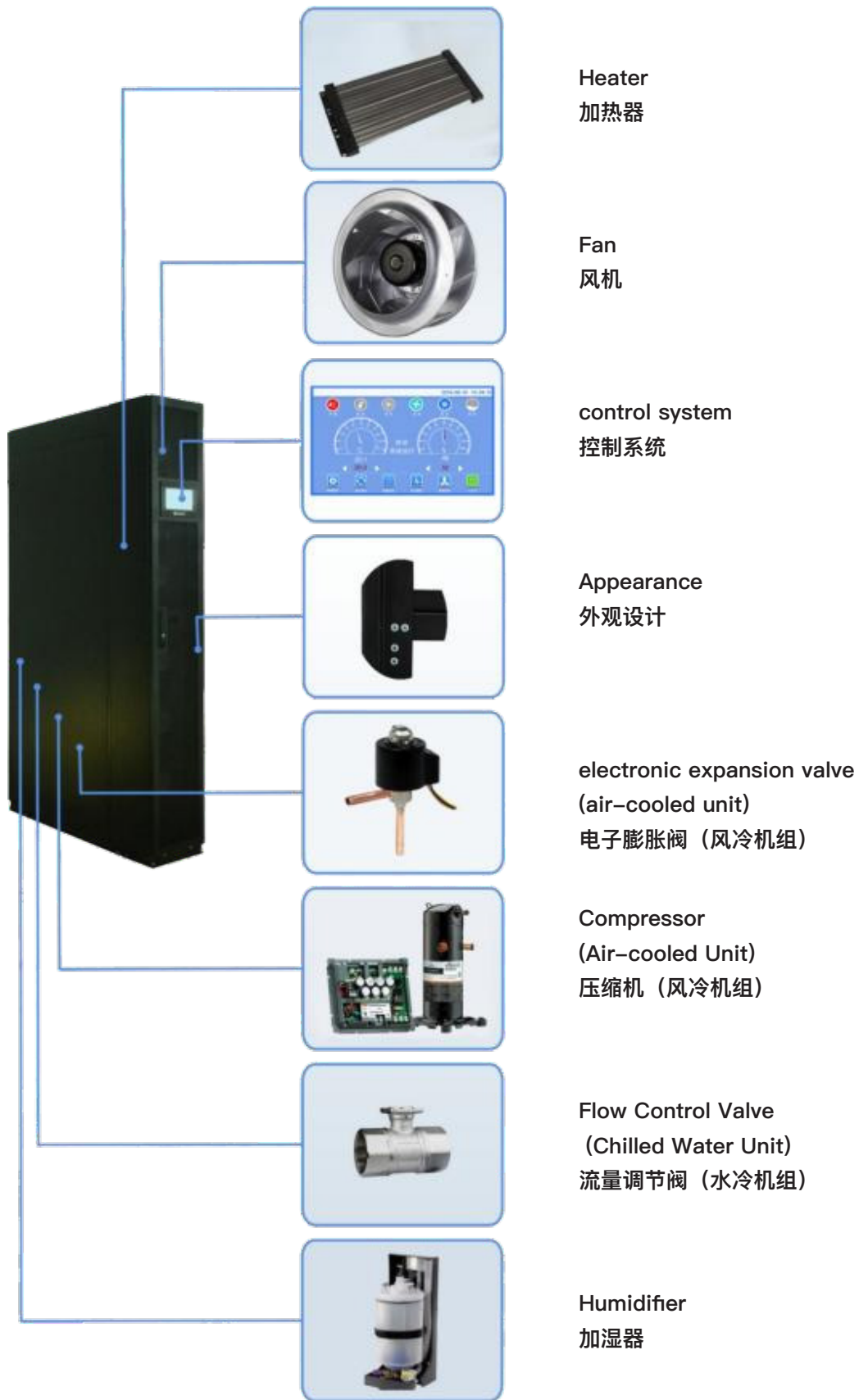
Product Model 产品型号	LXXAW		XL12	XL25	XL35	XL40
Cooling Capacity 制冷量	Cooling Capacity 制冷量	KW	12.5	25.2	35	42.5
	Sensible Cooling Capacity 显冷量	KW	12.5	25.2	35	42.5
	sensible heat ratio 显热比		1	1	1	1
Compressor 压缩机			vortex compressor 旋涡压缩机			
Fan 风机	fan type 风机型式		AC/EC Centrifugal AC/EC 离心	AC/EC Centrifugal AC/EC 离心	AC/EC Centrifugal AC/EC 离心	AC/EC Centrifugal AC/EC 离心
	air quantity 风量	m3/h	3200	5500	8200	10000
	air supply mode 送风方式		The rear return air system features front air supply with adjustable directional guide plates on-site, enabling multiple airflow configurations including front horizontal supply, left-side horizontal supply, right-side horizontal supply, and bilateral horizontal supply. 后回风正面送风，可配置带现场可调方向导风板，可实现正面水平送风，左侧面水平送风，右侧面水平送风、左右两侧水平送风多种方式			
expansion valve 膨胀阀			electron 电子			
cryogen 制冷剂			R4 10A			
Select configuration 选配	heat load 加热量	KW	3	3	6	6
	Humidification amount 加湿量	Kg/h	3	3	3	3
unit size 机组尺寸	Width 宽度	mm	300	300	600	600
	Depth 深度	mm	1200	1200	1200	1200
	Height 高度	mm	2000	2000	2000	2000
connector tube 连接管	air tube 气管	mm	φ 16	φ 19	φ22	φ22
	liquid tube 液管	mm	φ 12	φ 16	φ 16	φ 16
	drain-pipe 排水管	mm	φ 19	φ 19	φ 19	φ 19
	Humidifier inlet pipe 加湿器进水管		G1/2"	G1/2"	G1/2"	G1/2"
weight 重量		Kg	260	295	390	420

Distribution parameters 配电参数	Power supply specifications 电源规格			380V/50HZ			
	recommended circuit breaker 推荐断路器			D3 2	D4 0	D6 3	D6 3
	Cabling specifications 配线规格		mm ²	6	10	10	10
Outdoor Unit 室外机	Outdoor unit model 室外机型号			XL12W	XL25W	XL35W	XL40W
	Number of outdoor units 室外机数量			1	1	1	1
	Outdoor unit weight 室外机重量		Kg	50	100	100	100
	Cabling specifications 配线规格		mm ²	1.5	2.5	2.5	2.5
	vertical installation 立式安装	wide 宽	m m	850	850	850	1470
		Depth 深	m m	550	550	550	850
		Height 高	m m	800	1600	1600	1085
Note 备注			1.Test conditions: Return air temperature 37° C, relative humidity 24%; 2.Depth dimension extendable to 1200mm, height dimension extendable to 2200mm; 3. Outdoor unit configured for 35° C intake air temperature. For other operating environments, please contact our company; 4.When the equivalent distance of connecting pipes exceeds 30m, increase pipe diameter according to installation specifications; 5.For data not listed in the table, please contact our company; 6. For any other customization requirements, please contact our company. 1、测试条件：回风温度 37℃，相对湿度 24%； 2、深度尺寸可扩展到 1200mm，高度尺寸可扩展到 2200mm； 3、室外机按进风温度为 35℃选配，其他使用环境请与我公司联系； 4、连接管等效距离超出 30m 时，请参照安装规范加大管径； 5、如遇数据表中未有列出，请与我公司联系； 6、若有其它定制化需求，请与我公司联系。				

AIR SUPPLY MODE

送风方式





Heater

PTC heater, non-flame heating, safe and reliable with rapid temperature rise, reaching rated temperature in seconds, minimal impact from voltage fluctuations, stable operation

Fan

The high-efficiency EC fan delivers stable, reliable operation with low noise, achieving 30% energy savings compared to conventional fans. It meets diverse residual pressure requirements through N+1 redundant configuration, ensuring cooling performance even when any fan fails.

control system

An LCD display with Chinese/English interface shows ambient temperature/humidity and operational status of all unit components. Featuring multi-channel sensor monitoring, advanced PD control technology, comprehensive protection and alarm functions, master-level diagnostic capabilities, and RS485 intelligent communication interface for seamless remote monitoring and online group control.

Appearance

The cabinet's matte surface is designed to match its depth and height, ensuring wear resistance. Every connection is secure, stable, and seamlessly integrated with the surrounding cabinets, avoiding any jarring appearance.

electronic expansion valve (air-cooled unit)

Smoothly adjusts throttling opening, intelligently coordinates superheat and EC compressor performance to achieve energy-efficient load and cooling precision matching. Features wide adjustment range, rapid response, and precise refrigeration.

Compressor (Air-cooled Unit)

Adapt to the thermal load variation of the machine room by using high efficiency EC compressor, dynamic refrigeration, and energy saving by reducing frequency when the reliability is high or low load with R410a environmental protection refrigerant.

Flow Control Valve (Chilled Water Unit)

The equal percentage characteristic ensures precise flow control without sudden surges during valve operation, providing stable performance with excellent sealing and reliable operation. When paired with EC fans, it enables stepless cooling adjustment across a wide load range.

Humidifier

High water utilization efficiency, low power consumption, automatic antidry burning, high reliability, easy maintenance, equipped with mature automatic cleaning technology and fully validated.

加热器

采用 PTC 无焰加热技术，安全可靠，升温迅速，数秒可达额定温度，电压波动影响小，运行稳定。

风机

高效 EC 风机运行稳定可靠，噪音低，相比传统风机节能 30%。通过 N+1 冗余配置满足多样余压需求，确保任一风机故障时制冷性能不受影响。

控制系统

配备中英文界面 LCD 显示屏，实时显示环境温湿度及各部件运行状态。具备多路传感器监测、先进 PD 控制技术、完善的保护与报警功能、主机级诊断能力，以及 RS485 智能通讯接口，支持远程监控与在线群控。

外观设计

机柜采用哑光表面处理，与深度、高度协调统一，耐磨耐用。所有连接牢固稳定，与周围机柜无缝衔接，整体观感和谐统一。

电子膨胀阀（风冷机组）

节流开度调节平顺，智能协调过热度与 EC 压缩机性能，实现高效负荷与制冷精度的匹配。调节范围宽、响应迅速、控冷精准。

压缩机（风冷机组）

采用高效 EC 压缩机，适应机房热负荷变化，实现动态制冷。在可靠性要求高或低负荷时通过降频节能，使用环保冷媒 R410a。

流量调节阀（水冷机组）

等百分比特性确保流量精准控制，阀体动作无突跳，运行稳定，密封优良。搭配 EC 风机可实现宽负荷范围内的无级制冷调节。

加湿器

水利用率高，功耗低，具备自动防干烧功能，可靠性高且维护简便。配备成熟的自动清洁技术，性能经过充分验证。



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