



HIMOD M series

中/大型机

房解决方案

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Features of HIMOD M series (HIMOD M 系列产品特点) :

HIMOD M series is launched in 2005. It has all of the advantages of HIROSS series modular room air-conditioning, high precision temperature and humidity control, and diffuse type air supply. Cooling capacity is from 25 to 110 kW. The micro processing controller comes with the password protection, expert fault diagnosis function, phase sequence detection function, and the call for the start.

HIMOD M 系列是公司 2005 年新推出的机型, 秉承 HIROSS 系列模块化机房专用空调的全部优点, 高精度恒温恒湿控制与弥漫式送风。制冷量从 25 到 110 kW。微处理控制器具有密码保护、专家故障诊断功能、相序检测功能、和可实现来电自启动。

Environmental control: communication room, network center, satellite control center, IDC data center, power room, laboratory, training center, standard room, clean room, industry control center, precision machine center, UPS and battery room, and etc.

环境控制领域: 电信交换机房、网管中心、卫星控制中心、IDC 数据中心、动力机房、实验室、培训中心、标准室、洁净室、工业控制中心、精密加工中心、UPS 机房和电池室等。



Network center
网管中心



IDC data center
IDC 数据中心



Battery room
电池室



Laboratory
实验室

Advantages: (特点)

- Advanced intelligent control technology (先进智能化控制技术)
- Highly reliable (高可靠性)
- Fully front maintenance (全正面维护)
- Network management function (网络管理功能)
- High SHR (高显热比)
- Advanced microcomputer controller (先进的微电脑控制器)
- Structure design for easy operation and maintenance (易操作维护的结构设计)
- High efficient compressor (高效压缩机)
- Step less and low noise air-cooling condenser (无级调速低噪风冷冷凝器)
- EC fan (EC 风机)
- Unit with humidifying function (加湿功能的机型)
- Unit with heating function (加热功能的机型)
- Air filter (空气过滤器)
- The unit can adapt to outdoor environment very wide. The general model is suitable for the temperature from -15°C to $+45^{\circ}\text{C}$, and the LEE-TEMP model is good for the temperature from -34°C to $+45^{\circ}\text{C}$. The heating is not affected by temperature conditions. (可适应极宽温度的室外环境。普通型在 $-15^{\circ}\text{C} \sim +45^{\circ}\text{C}$ 范围内工作, LEE-TEMP 机型在 $-34^{\circ}\text{C} \sim +45^{\circ}\text{C}$ 范围内工作。加热不受温度条件限制)
- Comprehensive configurations: conventional air-cooled, water-cooled, chilled water, double cold source, natural cooling, high precision (applicable to the temperature and humidity particularly high requirements of the occasion $\pm 0.3^{\circ}\text{C}$, $\pm 2\%$). (全面的机型配置: 常规风冷式、水冷式、冷冻水型、双冷源型、自然冷却型、高精度型(适用于特别高的温湿度要求的场合 $\pm 0.3^{\circ}\text{C}$, $\pm 2\%$))





Humidification technology (加湿技术) :

A. Ultrasonic humidifier is the use of ultrasonic vibration to achieve humidification. Ultrasonic humidification technology has advantages such as high efficiency, low power consumption, good stability, and high security features. It can achieve temperature and humidity control independently without disturbing each other.

A. **超声波加湿器**是利用高效的超声波振动实现加湿的技术。超声波加湿技术具有加湿效率高、电耗低、稳定性好、安全性高等特点，可以实现温度控制与湿度控制的相互独立、互不干扰。

B. Electrode humidifier is the use of the electrode by passing a current through the water for humidifying. When water enters the electrode humidification barrels, the water level rises gradually, until the water swept over the electrode, the electrode will constitute a current loop through the water, with the water and ions move to boil water for generating clean steam.

B. **电极加湿器**是利用电极棒在水中通入电流来进行加湿。当电极加湿桶内的水位漫过加湿罐内的电极时，电极将通过水构成电流回路，借助水中的离子移动将水加热沸腾，以产生洁净水蒸汽。

C. Electric humidifier is the use of current through the resistor to generate heat. Electrical energy is converted into heat energy. Electric heating pipe submerged in water, and heating pipes generate heat, so that the water boils into water vapor. Characteristics of electric heating are stable and reliable performance, long life, less maintenance, and safety circuit design.

C. **电热式加湿器**是利用电流通过电阻产生热，电能转换成热能的原理，电加热管浸没在水中，电热管产生热量，使水沸腾变成水蒸汽。电加热特点：性能稳定可靠、寿命长、维护工作量小、安全电路设计。

D. Infrared humidifier mainly is the use of infrared radiation passing through the water surface to generate steam. The air supply system delivers steam into the space, so as to achieve the purpose of humidification. Infrared humidifier features are high efficiency and low maintenance, high humidification speed for poor water quality, and pure water vapor without debris.

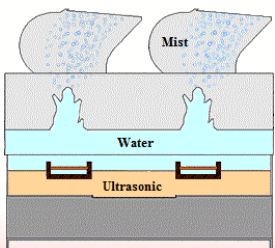
D. **红外线加湿器**主要透过红外热辐射使水表面在红外线作用下产生热量进而蒸发，经过送风系统把水蒸汽输送到空间来达到加湿的目的。红外线加湿器特点：高效低维护量、加湿速度快适用恶劣水质、蒸发出纯净的水蒸气不含杂物。

E. Wet film humidifier is the use of water from the top of the wet film through the trap along a corrugated uniform surface of wet film, so that the wet film is uniformly moist. When the dry hot air flows through the wet membrane surface, the heat-exchange is between water and hot air. The result will increase the humidity. Wet film humidifier features are simple structure, low maintenance cost, and high humidification speed.

E. **湿膜加湿器**主要透透水从湿膜的顶部通过疏水器沿湿膜的波纹表面均匀流下，使湿膜均匀的湿润，当热空气流过湿膜的表面，就会与湿膜中的水分进行热交换，增加空气的湿度。湿膜加湿器特点：结构简单、维护费用低、加湿速度快。

F. High-pressure spray humidifier is the use of pressurized water through ultra-fine filter. Through a special high-speed high-pressure nozzle generates mist formation of 3 ~ 15 μ m particle. The heat exchange is between hot air and mist resulting in humidity increasing. The humidification is achieved and it also plays a role in controlling dust.

F. **高压喷雾加湿器**是利用水经加湿器主机增压并通过超细过滤后，经过特制的高压喷嘴雾化高速喷出，形成 3~15 μ m 的水雾粒子，与流动的空气进行热交换，使空气的湿度增加，实现对空气的加湿处理，同时起到降温控制粉尘的作用。



A



B



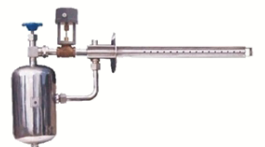
C



D



E



F

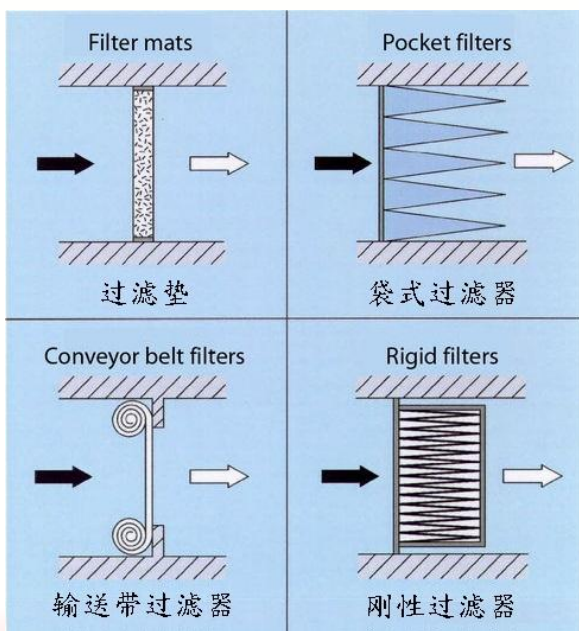


Air filter (空气过滤器) :

Comparative overview of filter test methods and filter classification used in the USA and Europe
 比较在美国和欧洲过滤器分类和过滤器测试方法的概述

Newest USA Particle Size Test	In Approximation with older test standard		European version of based on ASHRAE 52-76		European Version of Regular Dust Spot Test		New European Particle Size Test		BS 3928 High efficiency Particulate Air Filters Initial Efficiency A (Test Aerosol NaCl)
ASHRAE 52.2-1999 Std 52.2; Minimum Efficiency Reporting Value (MERV) (Test Aerosol: KCL)	ASHRAE 52.1 - 1992		Eurovent 4/5		DIN EN 779 2012		CEN EN 779 2012		
	Average Dust Spot Efficiency at 450 Pa	Average Arrestance at 250 Pa final	Average Dust Spot Efficiency at 450 Pa	Average Arrestance at 250 Pa final	Average Dust Spot Efficiency at 450 Pa	Average Arrestance at 250 Pa final	Average Efficiency of only 0.4 μm particles at 450 Pa (Test Aerosol DEHS)	Average Arrestance at 250 Pa	
Micron size 0.3 - 10.0 μm	$E_A > 20\%$	$E_A < 20\%$	$E_A > 20\%$	$E_A < 20\%$	$E_A > 20\%$	$E_A < 20\%$	Micron size 0.4 μm		Micron size 0.3 (0.6) μm
MERV 20	n/a	n/a							EU14 (A > 99.995%)
MERV 19	n/a	n/a							EU13 (A > 99.95%)
MERV 18	n/a	n/a							EU12 (A > 99.5%)
MERV 17	n/a	n/a							EU11 (A > 95%)
MERV 16	n/a	n/a							EU10 (A > 85%)
MERV 15	> 95 %	n/a	EU 9 (> 95 %)		F9 (> 95 %)		F9 (> 95 %)		
MERV 14	90 - 95 %	> 98 %	EU 8 (90 - 95 %)		F8 (90 - 95 %)		F8 (90 - 95 %)		
MERV 13	80 - 90 %	> 98 %	EU 7 (80 - 90 %)		F7 (80 - 90 %)		F7 (80 - 90 %)		
MERV 12	70 - 75 %	> 95 %	EU 6 (60 - 80 %)		M6 (60 - 80 %)		M6 (60 - 80 %)		
MERV 11	60 - 65 %	> 95 %							
MERV 10	50 - 55 %	> 95 %	EU 5 (40 - 60 %)		M5 (40 - 60 %)		M5 (40 - 60 %)		
MERV 9	40 - 45 %	> 90 %							
MERV 8	30 - 35 %	> 90 %		EU 4 (> 90 %)		G4 (> 90 %)		G4 (> 90 %)	
MERV 7	25 - 30 %	> 90 %		EU 3 (80 - 90 %)		G3 (80 - 90 %)		G3 (80 - 90 %)	
MERV 6	< 20 %	85 - 90 %		EU 2 (65 - 80 %)		G2 (65 - 80 %)		G2 (65 - 80 %)	
MERV 5	< 20 %	80 - 85 %							
MERV 4	< 20 %	75 - 80 %							
MERV 3	< 20 %	70 - 75 %							
MERV 2	< 20 %	65 - 70 %							
MERV 1	< 20 %	< 65 %		EU 1 (< 65 %)		G1 (< 65 %)		G1 (< 65 %)	

Source: Filtrair (资料来源: Filtrair)

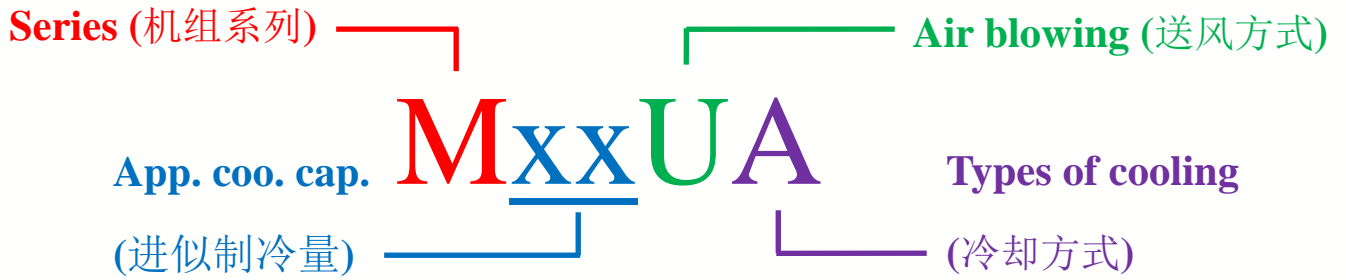


Type of air filter (空气过滤器的类型)

Comparison figure-right (对照图-右边)



Product type (产品型号) :



I.

The first letter represents the HIROSS's model. They are S, E, M, Q, W, V, I, L, and P series.

第一个英文字母表示 HIROSS 机组系列，分别为 S、E、M、Q、W、V、I、L 及 P 系列。

I: integrated machine series (一体机系列); V: evaporator (蒸发式系列); W: ceiling unit (吊顶式系列)

II.

The xx represents the approximate cooling capacity.

xx 英文字母表示进似的制冷量，以数字表示。

III.

The third letter represents the way of wind blowing. By using the letter to describe the different way of wind blowing is shown as following:

第三个英文字母表示不同送风方式，不同送风方式分别用不同英文字母表示，定义如下：

U – outlet (bottom); O – outlet (top); D – outlet (exchanging); G – outlet (gate); K – outlet (high accuracy); T – other purposes.

U – 下送风; O – 上送风; D – 置换送风; G – 格栅送风; K – 高精度型; T – 其他配置

IV.

The last letter represents the way of cooling. By using the letter to describe the way of cooling is shown as following:

第四个英文字母表示不同冷却方式，不同冷却方式分别用不同英文字母表示，定义如下：

A – air cooling 风冷; W – water cooling 水冷; D – air cooled dual-fluid 风冷双冷源; C – chilled water 冷冻水; E – free cooling 自由冷却; K – water cooled dual-fluid 水冷双冷源

Example: A customer makes a request for the cooling unit. The required specification is described as following: If M series is the best solution, the model can use the letter of "M" based on I to represent it. The cooling capacity is 30.7kW. The xx letter can use the number, "29" based on II, to represent it. The wind blowing is out from the bottom. The wind blowing can use the letter of "U" based on III to represent it. The way of cooling is used the water to cool down the equipment room. The way of cooling can use the letter of "W" based on IV to represent it. Finally, the model of HIROSS unit will use the letter, "M29UW", to represent it.

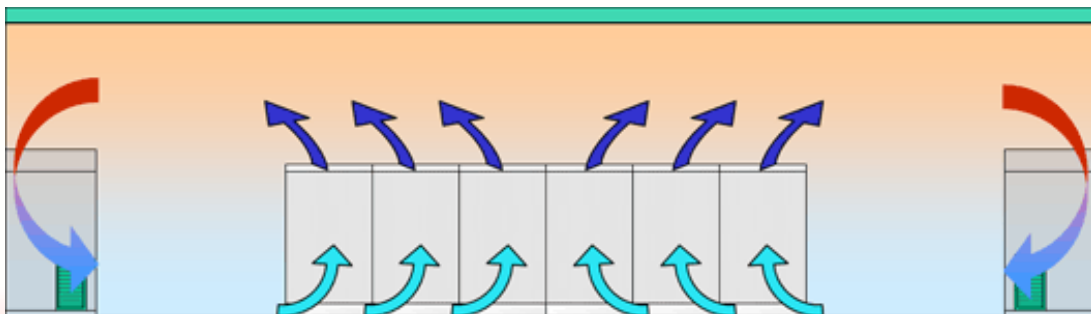
例如：依客户提出的要求。所要求的规格如下：如果 M 系列是最好的解决方案，可以用英文字母 "M" 代表它，依照 I 的规则。若冷却能力为 29KW。XX 可以使用数字 "29" 表示进似的制冷量，基于 II 的规则。送风方式若是下送风。送风方式可以使用英文字母 "U" 表示，基于 III 的规则。冷却的方式是使用水来冷却机房。因此冷却的方式可以使用英文字母 "W" 代表它，基于 IV 的规则。最后，此 HIROSS 机型的表示方式为 "M29UW"。



Specifications for HIMOD M series (HIMOD M 系列规格):

Direct expansion air cooling/water cooling - AW (直接膨胀风冷、水冷型 - A/W):							
Air flow: below, above (送风方式: 下送风、上送风)							
Model (型号)		M25	M29	M32	M34	M35	M41
Characteristics (性能)							
Total cooling cap. (总冷量)	kW	26.5	30.7	33.3	36.2	37.0	41.8
Humidity cap. (湿冷量)	kW	24.2	29.3	32.5	34.1	35.1	40.4
Hum. Heat ratio (湿热比)		0.91	0.92	0.97	0.94	0.95	0.95
EER (效能比)		3.58	3.35	3.51	3.62	3.58	3.52
Compressor Q. (压缩机数量)	n	1	1	1	2	1	1
Compressor power (压缩机功率)	kW	5.89	6.96	6.94	2x3.82	7.96	10.0
Fan Q. (风机数量)	n	1	1	2	2	2	2
Fan input power (风机输入功率)	kW	1.52	1.90	1.99	2.38	2.38	2x1.51
Wind rate (风量)	m ³ /h	7100	7880	10040	11140	11220	12470
Max. Pressure (最大风压-上/下风送)	Pa	380	280	420	350	340	380
Noise (噪音-下送风)	dB(A)	53	55	58	61	61	58
Humidity (加湿量)	kg/h	9	9	13	13	13	13
Power of hum. (加湿功率)	kW	5.8	5.8	9	9	9	9
Heating power (加热功率)	kW	7.5	7.5	15	15	15	15
Tube (气/液管径)	mm	22/18	22/18	22/18	16/16	28/22	28/22
标准水冷型 - W (进水温度 30℃, 出水温度 45℃) standard water-cooling type - W (inlet water temperature of 30 °C, outlet water temperature of 45 °C)							
Water flow (水流量)	l/s	0.64	0.71	0.74	2x0.43	0.87	1.08
Pressure (水端压降)	kPa	19	12	13	12	13	12
Pipe (水管管径)	inch	1"	1"	1 1/4"	2x3/4"	1 1/4"	1 1/4"
Max. power consumption (最大耗电量)	kW	14.9	16.3	23.0	21.2	25	28
Length (长度)	mm	1200	1200	1200	1200	1200	1500
Width (宽度)	mm	800	800	800	800	800	800
Height (高度)	mm	1800	1800	1800	1800	1800	1800
Weight (净重)	kg	425	430	575	590	580	600

M series is equipped with high precision temperature and humidity control with diffuse type air supply.
M 系列配有高精度恒温恒湿控制器与弥漫式送风的配置。



Diffuse type air circulation in equipment room (弥漫式送风空气在机房的循环方式)



Specifications for HIMOD M series (HIMOD M 系列规格):

Direct expansion air cooling/water cooling - AW (直接膨胀风冷、水冷型 - A/W):								
Air flow: below, above (送风方式: 下送风、上送风)								
Model (型号)		M42	M47	M50	M58	M66	L83U	L99U
Characteristics (性能)								
Total cooling cap. (总冷量)	kW	42.8	53.7	54.9	60.1	70.3	86.3	104.6
Humidity cap. (湿冷量)	kW	41.5	49.0	52.2	58.3	68.9	79.5	95.2
Hum. Heat ratio (湿热比)		0.97	0.91	0.95	0.97	0.98	0.92	0.92
EER (效能比)		3.63	3.45	3.59	3.40	3.49	3.31	3.68
Compressor Q. (压缩机数量)	n	2	1	2	2	2	2	2
Compressor power (压缩机功率)	kW	2x4.39	12.1	2x5.9	2x6.96	2x7.98	2x9.0	2x11.2
Fan Q.(风机数量)	n	2	2	2	2	2	2	2
Fan input power (风机输入功率)	kW	2x1.51	2x1.74	2x1.74	2x1.89	2x2.09	2x2.8	2x3.0
Wind rate (风量)	m ³ /h	12530	13550	13540	14580	15470	21520	24000
Max. Pressure (最大风压-上/下风送)	Pa	390	300	300	250	180	200	120
Noise (噪音-下送风)	dB(A)	58	60	59	61	63	64.9	66.3
Humidity (加湿量)	kg/h	13	13	13	13	13	13	13
Power of hum.(加湿功率)	kW	9	9	9	9	9	9	9
Heating power (加热功率)	kW	15	15	15	15	15	22.5	22.5
Tube (气/液管径)	mm	22/18	28/22	22/18	22/18	28/22	28/22	28/22
标准水冷型 - W (进水温度 30℃, 出水温度 45℃) standard water-cooling type - W (inlet water temperature of 30 °C, outlet water temperature of 45 °C)								
Water flow (水流量)	l/s	2x0.51	1.28	2x0.66	2x0.72	2x0.84	2x1.12	2x1.35
Pressure (水端压降)	kPa	12	13	20	12	12	10	11
Pipe (水管管径)	inch	2 3/4"	1 1/4"	2 1/4"	2 1/4"	2 1/4"	2 1/4"	2 1/4"
Max. power consumption (最大耗电量)	kW	22.4	30.5	24.4	25.8	27.2	37	39.7
Length (长度)	mm	1500	1850	1850	1850	1900	2150	2300
Width (宽度)	mm	800	850	850	850	950	1000	1080
Height (高度)	mm	1800	1800	1800	1800	1800	1800	1800
Weight (净重)	Kg	600	620	635	650	670	950	1000

The large surface area of evaporator coil improves the efficiency of units to ensure the effect of energy saving. The "V" structure of coil can make refrigeration system cycle match the refrigeration load. The air flow through the coil surface is smooth, and the "V" structure of coil also reduces the noise. When dehumidification, turn off the coil that only uses the part of 2/3. 65% of energy is used for dehumidification and it can effectively remove the moisture, greatly reduce the chance for reheating, and obviously provide the effect of energy saving.

超大面积的蒸发器盘管, 提高机组效率确保节能。采用“V型”结构盘管可使制冷系统的循环与制冷负荷相匹配, 通过盘管表面的气流更加平稳, 最大限度的降低机组噪声。除湿时, 关掉部分盘管, 只利用 2/3 的部分, 将 65% 的能量用于除湿, 更能有效地去掉湿气, 大大减少再热器的启动, 节能效果显著。





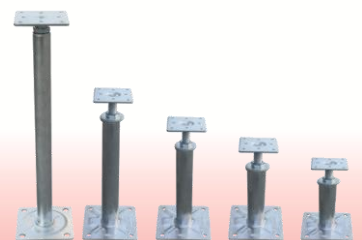
Specifications for HIMOD M series (HIMOD M 系列规格):

Frozen Water (冷冻水型):										
Model (型号)		M31	M42	M44	M52	M55	M65	M66	M72	M77
Characteristics (性能)										
Total cooling cap. (总冷量)	kW	31.2	42.1	43.6	51.8	58.6	65.4	68.8	71.8	83.5
Humidity cap. (湿冷量)	kW	25.3	33.7	34.9	42.5	49.7	53.1	56.4	56.7	65.1
Hum. Heat ratio (湿热比)		0.81	0.80	0.80	0.82	0.85	0.81	0.82	0.79	0.78
Fan Q.(风机数量)	n	1	1	1	2	2	2	2	2	2
Wind rate (风量)	m ³ /h	7800	8600	8650	13000	13740	15000	15370	15500	15950
Max. Pressure (最大风压-上/下风送)	Pa	150	170	170	170	340	245	245	170	170
Noise (噪音-下送风)	dB(A)	54.1	55	55	56	58	61	60	61.1	62
Water flow (水流量)	l/s	1.78	2.01	2.08	2.69	2.79	3.23	3.28	3.81	3.99
Pressure (水端压降)	kPa	81	89	91	90	89	67	65	80	81
Pipe (水管管径)	inch	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
Length (长度)	mm	1320	1500	1500	1850	1850	1850	1850	2200	2200
Width (宽度)	mm	800	800	800	850	850	850	850	950	950
Weight (净重)	kg	280	320	330	440	480	540	550	580	600

Frozen Water (冷冻水型):										
Model (型号)		L90U	L10U	L12U	L14U	L15U				
Characteristics (性能)										
Total cooling cap. (总冷量)	kW	90.7	103.4	117.9	142.8	158.9				
Humidity cap. (湿冷量)	kW	76.8	83.9	97.9	111.7	121.5				
Hum. Heat ratio (湿热比)		0.85	0.81	0.83	0.78	0.76				
Fan Q.(风机数量)	n	2	2	3	3	3				
Wind rate (风量)	m ³ /h	19060	20400	23100	25100	26070				
Max. Pressure (最大风压-上/下风送)	Pa	330	310	290	250	250				
Noise (噪音-下送风)	dB(A)	58.7	61	62.1	62.1	63.8				
Water flow (水流量)	l/s	4.33	4.93	5.62	6.81	7.58				
Pressure (水端压降)	kPa	75	79	104	80	80				
Pipe (水管管径)	inch	2"	2"	2 1/2"	2 1/2"	2 1/2"				
Length (长度)	mm	2200	2300	2550	2550	2550				
Width (宽度)	mm	950	1080	1080	1080	1080				
Weight (净重)	kg	620	610	740	800	810				

The floor bracket height is adjustable to make HIMOD series and movable floor in equipment room becoming one. With the use of frozen water units and natural cooling system will have the obvious effect for energy saving.

高度可调整的地板支架，可以使 HIMOD 系列模块机组与机房的地板成为一体。冷冻水机组与自然冷却系统配合使用，会有显著的节能效果。





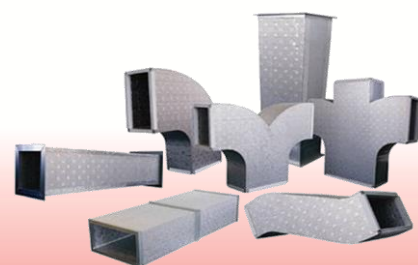
Specifications for HIMOD M series (HIMOD M 系列规格):

Free cooling – F (自然冷却型 – F):											
Air flow: below, above (送风方式: 下送风、上送风)											
Model (型号)		M25	M32	M34	M35	M41	M42	M47	M50	M58	L83U
Characteristics (性能)											
Total cooling cap. (总冷量)	kW	25.7	33.3	34.4	35.7	41.0	42.1	51.6	51.7	57.1	75.8
Humidity cap. (湿冷量)	kW	22.7	32.5	32.1	32.8	40.2	41.5	45.6	44.9	48.5	68.9
Hum. Heat ratio (湿热比)		0.88	0.93	0.93	0.92	0.91	0.92	0.88	0.87	0.85	0.91
Fan Q.(风机数量)	n	1	2	2	1	2	2	2	2	2	2
Wind rate (风量)	m ³ /h	7100	10040	11140	11220	12470	12530	13550	13540	14580	19010
Max. Pressure (最大风压-上/下风送)	Pa	270	320	250	200	330	330	250	250	190	200
Noise (噪音-下送风)	dB(A)	54	59	59	60	59	59	62	60	62	65.7
Length (长度)	mm	1200	1200	1200	1200	1200	1500	1500	1850	1850	2200
Width (宽度)	mm	800	800	800	800	800	800	800	850	850	950
Weight (净重)	kg	510	715	725	720	730	745	740	755	770	1140

Dual fluid air cooling/water cooling – D/H (双冷源风冷、水冷型 – D/H):											
Air flow: below, above (送风方式: 下送风、上送风)											
Model (型号)		M25	M32	M34	M35	M41	M42	M47	M50	M58	L83U
Characteristics (性能)											
Total cooling cap. (总冷量)	kW	25.7	33.3	34.4	35.7	41.0	42.1	51.6	51.7	57.1	81.0
Humidity cap. (湿冷量)	kW	22.7	32.5	32.1	32.8	40.2	41.5	47.0	47.5	51.5	71.1
Hum. Heat ratio (湿热比)		0.88	0.93	0.93	0.92	0.91	0.92	0.91	0.92	0.90	0.88
EER (效能比)		3.31	3.29	3.30	3.26	3.28	3.36	3.25	3.33	3.16	3.11
Characteristic of water cooling (水冷性能)											
Total cooling cap. (总冷量)	kW	29.3	44.6	47.0	48.1	56.3	56.8	60.1	60.1	62.5	83.7
Humidity cap. (湿冷量)	kW	24.8	37.4	39.9	40.7	46.1	46.3	49.6	49.6	51.9	72.3
Hum. Heat ratio (湿冷比)		0.85	0.84	0.85	0.85	0.82	0.83	0.83	0.83	0.83	0.86
Compressor Q. (压缩机数量)	n	1	1	2	1	1	2	1	2	2	2
Fan Q.(风机数量)	n	1	2	2	1	2	2	2	2	2	2
Wind rate (风量)	m ³ /h	7100	10040	11140	11220	12470	12530	13550	13540	14580	19010
Water flow (水流量)	l/s	0.64	0.74	2x0.43	0.87	1.08	2x0.51	1.28	2x0.66	2x0.72	2x0.72
Pressure (水端压降)	kPa	19	13	12	13	12	12	13	20	12	12
Pipe (水管管径)	inch	1”	1 1/4”	2 3/4”	1 1/4”	1 1/4”	2x 3/4”	1 1/4”	2x1 1/4”	2x 1 1/4”	2x 1 1/4”
Max. Pressure (最大风压)	Pa	270	320	250	200	330	330	250	250	190	200
Noise (噪音-下送风)	dB(A)	54	59	59	60	59	59	62	60	62	65.7
Weight (净重)	kg	510	715	725	720	730	745	740	755	770	1115

The indoor unit of HIMOD series can be matched with different wind hood. For bottom air supply, the unit can be connected with air inlet duct. For top air supply, top air supply hood can make air flow which is stable and uniform in the room.

HIMOD 系列室内机组可匹配不同的风帽，在下送风机组中，可安装回风管道与机组相连接。在上送风系统中，上送风风帽可使机房各个角落的气流稳定均匀。





Specifications for HIMOD M series (HIMOD M 系列规格):

Diffuse air flow (弥漫式送风) :			
Model (型号)		M25	M29
Characteristics (性能)			
Total cooling cap. (总冷量)	kW	26.4	30.7
Humidity cap. (湿冷量)	kW	23.6	29.3
Hum. Heat ratio (湿热比)		0.89	0.90
EER (效能比)		3.56	3.39
Compressor Q. (压缩机数量)	n	1	1
Fan Q. (风机数量)	n	1	1
Wind rate (风量)	m ³ /h	6680	7470
Max. Pressure (最大风压-上/下风送)	Pa	0	0
Noise (噪音-下送风)	dB(A)	62	64
Length (长度)	mm	1200	1200
Width (宽度)	mm	800	800
Weight (净重)	kg	425	430



All routine maintenances of HIMOD series can be accessed in front and all parts can be taken out easily. Air filter can also be replaced in front. Under the normal operation condition, the maintenance for the refrigeration system can be carried out. Because the design of HIMOD series is very flexible, it can be utilized in a variety of ways of cooling.

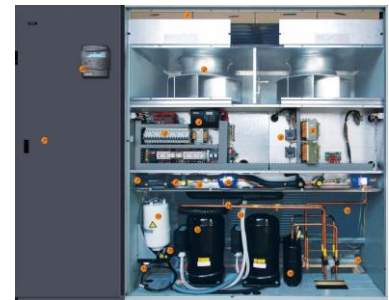
HIMOD 系列的所有日常维护工作都可以在机组的正面完成，所有的部件都可以从机组的正面取出来。空气过滤器可以从机组的正面进行更换。在机组正常运行的情况下，可以对制冷系统进行检修。由于 HIMOD 系列有非常灵活的设计，使其可以采用多种冷却方式。

HIROSS attaches great importance to environmental protection issues. Now, HIMOD series is used the refrigerant of R22 that is HCFC kind of refrigerant and the ozone damage index (ODP) value is very low. In addition, HIMOD series can also use R407C refrigerant -- now has been widely applied. In Europe, the new refrigeration equipment will not use R22 refrigerant after 2000. The air-conditioning system using new refrigerant can provide the same effect as R22 refrigerant. Need to pay attention to that the compression system using new refrigerant needs to replace the mineral oil with synthetic ester lubricant.

HIROSS 公司非常重视环境保护的问题。现在，HIMOD 系列标准型机组选用的是 R22 制冷剂，这是 HCFC 类制冷剂，其臭氧破坏指数 (ODP) 值非常低。此外，HIMOD 系列也可以选用 R407C 制冷剂——现在已经广泛地得到应用。在欧洲，公元 2000 年以后生产的新制冷设备中，将不再采用 R22 制冷剂，采用新型制冷剂的空调系统，可以提供与采用 R22 制冷剂相同的制冷功率。需注意的情况是，选用新型制冷剂的压缩系统，需使用合成酯类润滑剂替代矿物质油。

The compressor is mounted on the rubber shock absorber base that reduces noise and vibration. And its design is in the outside of the air stream. Flow channel is the curvature design that reduces the noise.

压缩机安装在橡胶减震底座上，减少噪音和震动。并将其设计在气流之外。气流通道曲线设计，以减少噪音。





The standard diameter and electrical data series (标准管径及电气技术数据):

Model (型号)	Tube diameter for air (气管直径) (mm)	Tube diameter for liquid (液管直径) (mm)	Running current (运行电流) FLA(A)	Current protection (断路器保护电流) I Δ n=0.3A(400V)	Min. cable diameter (最小电缆线直径) (mm)
S03/S04/S05/W03/W04/W05	12×1	12×1	16.9	32A	6
S07/W08	16×1	12×1	17.5	32A	6
S10/W10	16×1	12×1	18.5	32A	6
S12	16×1	12×1	20	32A	6
S13/W13	18×1	16×1	22	32A	6
S16/S17/S18/W16/W18	18×1	16×1	24	32A	10
S20/S21/W21	18×1	16×1	28	50A	10
S23/W23	18×1	16×1	30	50A	10
S25/M25/W26	22×1	18×1	31	50A	10
S29/M29	22×1	18×1	43.1	50A	10
M32	22×1	18×1	45.2	50A	10
M34	18×1	16×1	45.4	50A	16
M35	28×1	22×1	47.9	63A	10
M41	28×1	22×1	52.7	63A	16
M42	22×1	18×1	46.8	63A	16
M47	28×1	22×1	57.5	63A	16
M50	22×1	18×1	64.5	80A	25
M58	22×1	22×1	68.3	80A	25
M66	28×1	22×1	69.3	80A	25
28A/W/F/D/H	22×1	18×1	45.2	50A	10
34A/W/F/D/H	28×1	22×1	47.9	50A	10
40A/W/F/D/H	28×1	22×1	52.7	63A	16
26A/W/F/D/H	18×1	18×1	40.2	50A	16
32A/W/F/D/H	18×1	18×1	44.4	50A	16
42A/W/F/D/H	22×1	18×1	46.8	63A	16
46A/W/F/D/H	22×1	18×1	55.2	63A	25
55A/W	22×1	18×1	69.3	80A	25
65A/W	28×1	22×1	69.3	80A	25
81A/W	28×1	22×1	75.2	100A	35
99A/W	28×1	22×1	83.6	100A	35

P.S. The diameter of gas or liquid tube and electrical parameters will be adjusted in accordance with local regulations. The list above is for reference only.

附：气/液管径及电气参数会依照当地法规规定而调整，上述表列仅供参考。





Parameters for outdoor units (室外机参数):

Model (型号)	Length (长度) (mm)	Width (宽度) (mm)	Height (高度) (mm)	Weight (重量) (kg)
S03/S04/W03/W04	780	260	540	45
S05/S07/W05	840	285	610	50
S08/W08	830/880	310/360	710/800	52/55
S10/W10	880	360	800	55
S12/S13/W13	830/930	310/390	1260/1270	60/64
S16/S17/S18/W16/W18	930	390	1270	68
S20/S21/S23/S25/M25/P06/W21/W23/W26	1220	450	1180	80
S20/S21/S23/S25/M25/P06/W21/W23/W26 (Optional)	940	1120	935	83
S29/M29/P07/P08/P09/E08/26U/28U	1220	450	1180	95
S29/M29/P07/P08/P09/E08/26U/28U (Optional)	940	1120	1195	99
M32/M34/M35/P10/32U/34U	1500	450	1180	130
M32/M34/M35/P10/32U/34U (Optional)	940	1120	1195	133
M41/M42/Q11/P11/E14/42U	1500	450	1425	149
M41/M42/Q11/P11/E14/42U (Optional)	1190	1190	1425	154
M47/M50/Q14/P15/40U	2165	450	1180	168
M47/M50/Q14/P15/40U (Optional)	1880	1120	1030	172
M58/P17/E16/E17/46U/55U	2165	450	1180	184
M58/P17/E16/E17/46U/55U (Optional)	1880	1120	1030	189
Q17/E18	2400	450	1180	246
Q17/E18 (Optional)	1880	1120	1195	252
M66/Q19/65U	2640	450	1180	260
M66/Q19/65U (Optional)	1880	1120	1195	268
L83U	2820	1120	1030	281
Q22/Q25U	2820	1120	1195	293
L99U/Q29U	2820	1120	1195	311

P.S. (备注): The parameters for non-standard products do not shown in here, if necessary, please contact the manufacturer. The new design of components and structures for the unit will change depending on the actual situation.

非标准型号机型参数不列在此处，如果有需要，请和生产厂家联系。新机型所使用的元件及机组内部的设计会根据实际状况而有所变动。



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